Remedial Action Report

Ottati & Goss/Kingston Steel Drum Superfund Site

Operable Unit 3

October 2012

Prepared by:
The United States Environmental Protection Agency
Region 1, New England

EPA
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Approved by:
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10/11/12
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1.0 Introduction

This document is the Remedial Action Report for the Ottati and Goss/Kingston Steel Drum Superfund Site, OU3. The bulk of the supporting information for this Remedial Action Report is provided in the attached In-Situ Chemical Oxidation Remedial Action Summary Report (Attachment) prepared for the USEPA by AECOM under EPA Contract No. EP-S1-06-01. This Report was prepared in accordance with the OSWER guidance document titled "Close Out Procedures for National Priorities List Sites, OSWER 9320.2-22".

2.0 Background

The Site is located in Rockingham County, in the town of Kingston New Hampshire (see Figure 1 of Attachment). The approximately 58-acre Site is divided by Route 125 and is comprised of three distinct sections. The first section is a 5.89-acre parcel, historically referred to as the Great Lakes Container Corporation and Kingston Steel Drum (GLCC/KSD) area. This portion of the Site is fenced and is now owned by the State of New Hampshire. The second section is 29 acres; owned partly by the Senter Transportation Company (BBS Realty Trust parcel north of the State-owned parcel), and partly by Concord Realty Trust or John Peter Sebetes (south of the State-owned parcel).. One acre of this 29-acre section was leased to Ottati and Goss, Inc. (O&G). This entire 29-acre parcel is at times referred to as the O&G portion of the Site. The third section is a 23-acre marsh located east of the GLCC/KSD section, between Route 125 and Country Pond. This parcel was purchased by the IMCERA Group, Inc. in 1984 and is referred to as Country Pond Marsh (see Figure 2 of Attachment).

From the late 1950's through 1967, the Conway Barrel and Drum Company (CBD) owned the Site and performed drum reconditioning operations in the GLCC/KSD portion of the Site that is now owned by the State of New Hampshire. The reconditioning operations included caustic rinsing of drums and disposal of the rinse water in a dry well near South Brook. As a result of South Brook and Country Pond pollution, CBD established two leaching pits (lagoons) in areas removed from South Brook. These lagoon areas were known as the "Kingston Swamp" and the "caustic lagoon." Kingston Steel Drum, the operator of the facility from 1967 to 1973, continued the same operations as CBD.

In 1973, International Minerals and Chemicals Corporation (IMC) purchased the drum and reconditioning plant and operated it until 1976. The lagoons were reported to be filled in 1973 and 1974. The property was purchased in 1976 by the GLCC. Beginning in 1978, O&G leased a small part of the Site and conducted operations that were described as "processed hazardous materials brought to the Site in drums." Heavy sludges from the wash tank and from drainings, and residues from incinerator operations at GLCC were transported to the O&G portion of the Site for processing. O&G

operations ceased in 1979. GLCC continued the drum reconditioning operation on its portion of the Site until July 1980.

In September 1983, the Site was added to the EPA's National Priorities List (NPL). In August 1986, the Remedial Investigation/Feasibility Study (RI/FS) was completed under a Cooperative Agreement with the New Hampshire Water Supply and Pollution Control Commission (currently the New Hampshire Department of Environmental Services (NHDES)). In January 1987, a ROD was issued for the entire Site.

Initial Response Activities

From December 1980 to July 1982, EPA conducted emergency removal actions and processed and removed over 4,000 drums from the O&G portion of the Site. In September 1983, the Site was listed on the NPL. IMC also conducted similar cleanup operations at the GLCC/KSD portion of the Site, removing drums and soil between July 1984 and June 1985. The total removal included 12,800 tons of soil, drums, and metals; 101,700 tons of flammable sludge; and 6,000 gallons of flammable liquid.

Basis for Remedial Action

The 1986 RI/FS conclusions were as follows:

- Soil throughout the Site was contaminated with volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), acid/base/neutral compounds (ABNs), metals, and cyanide at high concentrations at numerous locations.
- Surface water in North Brook, South Brook, and Country Pond contained dissolved VOCs.
- Sediments in North Brook, South Brook, and the marsh contained VOCs and PCBs.
- Groundwater contaminated with VOCs, arsenic, nickel, iron and manganese was evident in several plumes. The plumes appeared to merge into one plume which migrated under Route 125 and Country Pond Marsh, eventually discharging into Country Pond.
- There were no significant airborne contaminants.

1987 Record of Decision

In January 1987, EPA issued a Record of Decision for the entire Site which summarized the evaluation of remedial alternatives presented in the 1986 Feasibility Study (FS). The cleanup alternative selected in the 1987 ROD generally consisted of:

- Excavating approximately 19,000 cubic yards of soil and sediment to be treated on Site using incineration and thermal aeration;

- Mitigation of groundwater contamination by extraction, treatment, and discharge of the treated groundwater to up-gradient groundwater or possibly surface water;

- Site grading, demolition/disposal of above-ground and below-ground structures including a building, utilities, and underground storage tanks;

- A soil cover; and

- Long-term monitoring of the Site and Country Pond.

The groundwater extraction component of the remedy described in the 1987 ROD also included the following components:

- Monitoring on-site wetlands to ensure that groundwater extraction is not negatively impacting the wetlands (*e.g*,. lowering water levels within the wetland);

- Initiating a long-term groundwater monitoring program of on-site and off-site monitoring wells; and

- Monitoring residential wells during implementation of the remedy. The frequency and parameters of the monitoring was to be determined during design.

Remedial Actions Performed at the Site

In 1988 and 1989, several potentially responsible parties (PRPs) excavated and treated approximately 4,700 cubic yards of VOC-contaminated soil at the former O&G area of the Site (see Figure 2 of Attachment). The treatment method used was thermal desorption (thermal aeration in the ROD). This work was designated as operable unit 1 (OU1). The groundwater treatment design, which was being performed by the PRPs, was designated as operable unit 2 (OU2).

In 1993, EPA, the NHDES, and the PRPs entered into a Consent Decree. This agreement resulted in most parties contributing to a cash settlement, rendering the remainder of the costs at the Site to be paid for by the Federal Superfund. Operable units 3 and 4 (OU3 and OU4) were subsequently designated to complete the remediation, with OU3 related to addressing the groundwater contamination and OU4 related to addressing building demolition and soil and sediment contamination. OU1 (the former O&G area) was considered completed and OU3 superseded OU2 (no groundwater treatment design was completed by the PRPs).

From September 1993 through February 1994, the large building which housed the drum reconditioning operations on the GLCC/KSD portion of the Site was demolished.

Hazardous materials were removed from the building and disposed of off-site. Several underground storage tanks were also removed.

In September 1996, a preliminary design for the groundwater extraction and treatment system (OU 3) was completed.

In September 1999, an Explanation of Significant Differences (ESD) to the 1987 ROD was issued. The ESD addressed a change in the treatment technology to be used to remediate the contaminated soils and sediments. The ESD also restricted future use of the former GLCC/KSD property to commercial use (without day care) and addressed an increase in the amount of soil to be excavated and treated.

The NHDES acquired the former 5.89 acre GLCC/KSD property in the Fall of 2000. In 2000, EPA contracted the U.S. Army Corps of Engineers – New England District (USACE) to perform the soil and sediment remediation at the Site. Environmental Chemical Corporation (ECC) was contracted by USACE to complete the OU4 soil and sediment excavation, low temperature thermal desorption (LTTD) treatment, and restoration activities. Between August 2001 and June 2002, approximately 72,347 tons of PCB- and VOC-contaminated soil (not including oversized material > 2-inches) was excavated from the GLCC/KSD area of the Site and treated in an on-site LTTD plant.

Between February 2001 and October 2002, approximately 9,143 tons of sediment from Country Pond Marsh were excavated, transported, and disposed of as non-hazardous waste at a Resource Conservation and Recovery Act (RCRA) Subtitle D disposal facility. Approximately 492 tons of sediment were transported and disposed of as PCB waste (regulated under the Toxic Substances Control Act (TSCA)) at a RCRA Subtitle C landfill facility. The Country Pond Marsh remediation was divided into two areas, a thirty-inch deep excavation area, and a six-inch deep excavation area. Remediation and restoration of OU4, totaling six acres of wetland in Country Pond Marsh, was completed in September 2002.

Small portions of soil contamination with total VOC concentrations greater than the cleanup goal of 1 ppm (1,000 µg/kg) total VOC could not be excavated because it was not possible to dewater the excavation to reach all contaminated soil in the saturated zone. Also, some soil contamination was located very close to Route 125 and further excavation was not possible because of concerns with respect to undermining the road. The quantity of such soil was judged to be relatively small in comparison to the quantities that were successfully excavated, treated, and backfilled. Therefore, it was determined that any residual soil source areas would be managed under the groundwater operable unit (OU3).

In February 2002, an ESD was issued addressing a modification to the handling of residual materials. In March 2003, the Final OU4 Remedial Action Report for soil and sediment remediation on the GLCC/KSD and Country Pond Marsh portions of the Site was issued.

From November 2004 through February 2005, EPA completed a groundwater pump test, pilot scale groundwater treatability study and prepared a groundwater treatability study report. From October 2006 through June 2007 the EPA conducted additional groundwater and soil sampling on the GLCC/KSD portion of the Site to gain a better understanding of the horizontal and vertical extent of the primary sources of VOC contamination remaining at the Site and which continue to be on-going sources of groundwater contamination.

In July 2007 the State of New Hampshire recorded a notice to the chain of title for the GLCC/KSD property to document the land use restrictions required to maintain the protectiveness of the soil remedy and to establish institutional controls over 5.89 acres of the Site.

Institutional Controls Obtained

In July 2007 the State of New Hampshire recorded a notice to the chain of title for the GLCC/KSD property to document the land activity and use restrictions (AURs) required to maintain the protectiveness of the soil remedy and to establish institutional controls over the 5.89 acres of the property. The AURs allow for commercial or industrial uses provided soils are not disturbed at a depth greater than six feet. Use of the property as a residence, school, nursery, recreational area or any other use at which a child's presence is likely or intended is not permitted. Installation of groundwater wells or any removal or exposure to groundwater (except for remediation purposes) is not permitted unless such activity is first evaluated and approved by the EPA and NHDES.

On March 13, 2012, the Town of Kingston, NH adopted an ordinance which established a groundwater management zone comprised of the three properties that define the Ottati and Goss/Kingston Steel Drum Superfund Site (Tax Map R10, Lot 1; Tax Map R13, Lot 14; and that portion of Tax Map R13, Lot 16 which is located south of North Brook). The Town adopted ordinance prohibits all use of groundwater for any purpose whatsoever without prior approval from the Town, US EPA and the NH DES. No wells of any nature whatsoever shall be dug, installed, or otherwise created within the Zone without prior approval from the Town, US EPA and the NH DES. No groundwater shall be drawn by any means whatsoever or for any use whatsoever from within the Zone without prior approval from the Town, US EPA and the NH DES . Also, no disturbance of wetlands within the Zone shall be permitted without prior approval from the Town, US EPA and the NH DES. These restrictions do not apply to US EPA and NH DES activities authorized under CERCLA.

2007 Record of Decision Amendment

In 2006, EPA determined that the ROD-selected remedy for OU3 should be re-evaluated, to take into account the effects of remedial actions already performed at the Site that caused changes in the Site groundwater plumes; and to also consider advances in remedial technologies and overall knowledge of the Site since the 1986 FS was prepared. From October 2006 through June 2007 the EPA conducted additional groundwater and soil sampling on the GLCC/KSD portion of the Site to gain a better understanding of the horizontal and vertical extent of the primary sources of VOC contamination remaining at the Site and which continue to be on-going sources of groundwater contamination.

In 2007, EPA issued a Task Order to AECOM (formerly Metcalf & Eddy) to prepare a Feasibility Study Addendum Report for OU3 that evaluated the originally-selected remedy (pump and treat) in comparison to In-Situ Chemical Oxidation (ISCO), using data that were collected during pre-design investigations performed in the winter and spring of 2007 to better delineate the groundwater contamination. The FS Addendum evaluation suggested that an ISCO remedy would likely be more cost-effective and timely than pump and treat [M&E, 2007], and led EPA to issue a Proposed Plan in July 2007 to change the remedy for OU3 to ISCO. The New Hampshire Department of Environmental Services (NHDES) concurred with the Proposed Plan and comments from the citizens of Kingston were positive.

In September 2007, the EPA issued an Amended Record of Decision to change the OU3 groundwater restoration component of the remedy from groundwater pump and treat to *in-situ* chemical oxidation (ISCO) and monitoring. The rationale for the fundamental change to the remedy and a description of the new ISCO component to the remedy is provided in the 2007 ROD Amendment (USEPA 2007).

OU3 ISCO Design Activities

In September 2007 EPA tasked AECOM to perform additional pre-design investigations, ISCO bench-scale and pilot-scale tests, and remedy design. ISCO bench scale and pilot-scale tests were completed between November 2007 and March 2008 (Task Order #0022). The bench-scale and field pilot-scale chemical oxidation testing is summarized in the In-Situ Chemical Oxidation Treatability Study Report (M&E, 2008A). A Basis of Design Report (BODR) for ISCO was completed in March 2008 which presented the Site history and background, results from remedial design investigations and pilot tests, the remedial action objectives and cleanup goals, and the rationale for various design selections (e.g., injection well spacing, injection depth intervals, and oxidant dosages) for full-scale remedial action (M&E, 2008B). The interim cleanup levels (ICLs) for groundwater and the maximum exceedances of those levels prior to performance of ISCO, but after both soil remedial actions (OU1 and OU4) had been completed, are presented in Table 1-1 of the attached ISCO Remedial Action Summary Report.

3.0 OU3 ISCO Construction Activities

Mobilization, construction of ISCO injection wells and performance monitoring wells, and chemical oxidant injection commenced in July 2008. ISCO injections were completed within three groundwater residual source areas of the Site: Areas A and B on the portion of the Site owned by the State of New Hampshire (NH) and Area C or the North Plume area which is located on privately-owned land north of the NH-owned portion of the Site. The selected chemical oxidant (base-activated sodium persulfate) was delivered into the subsurface (below the groundwater table) using a combination of permanent wells and temporary direct push injection points. Injections were completed in September 2008, and EPA prepared a Preliminary Closeout Report for the Ottati & Goss/Kingston Steel Drum Superfund Site in September 2008 (USEPA, 2008). Prior to ISCO remedial action, a site-wide groundwater and surface water monitoring round was performed in June 2008 to provide baseline data to monitor the overall site plumes, including wells located outside the ISCO injection areas.

The effectiveness of the first (2008) full-scale injection event was evaluated by the collection of groundwater samples from selected monitoring wells and injection wells. Two rounds of performance monitoring were performed in January 2009 and April 2009. These results were used to design a second injection event that was implemented during the fall of 2009. This second injection event was approximately one-half the magnitude of the first injection event and targeted portions of Areas A and B where performance monitoring showed that concentrations of contaminants of concern still exceeded MCLs by significant margins. No injections were performed in Area C in the fall of 2009 based on low concentrations of contaminants of concern detected in Area C wells sampled following the 2008 ISCO injection. The 2009 performance monitoring results and the injection design for the fall of 2009 were documented in Basis of Design Report Addendum #1 submitted to EPA in June 2009 (M&E, 2009).

A second site-wide groundwater and surface water monitoring round was performed in June 2009 to mirror the June 2008 (pre-ISCO) baseline sampling round and provide data to monitor the overall site plumes, including wells located outside the ISCO injection areas. Additional injection wells were installed in August 2009, and injections were completed by mid-October 2009.

In February 2010, AECOM performed the first of two planned performance monitoring rounds to assess the effectiveness of the fall 2009 ISCO injection program. The February 2010 event involved the sampling of groundwater from seventeen performance monitoring wells and ISCO injection wells with analysis for VOCs, metals, 1,4-dioxane (selected wells only), and sulfate. A second event was performed in April 2010 to collect additional groundwater data using the EPA mobile laboratory for analysis of selected VOCs. Soil samples were also collected in April 2010 and analyzed by the mobile laboratory to assess the progress of remediation of contamination adsorbed to soil in Areas A and B, and determine whether the potential for significant contaminant rebound exists. The third site-wide groundwater and surface water sampling event was performed in June 2010.

Based on the performance monitoring results following the first two injection events (2008 and 2009), one more ISCO injection event was planned for and implemented in the fall of 2010 to achieve further progress in attaining the remedial goals established for the Site. The performance monitoring results from 2009 and spring 2010 along with the ISCO injection design and details for the third injection in 2010 were documented in Basis of Design Report Addendum #2 submitted to EPA in August 2010 (M&E, 2010).

The attached ISCO Remedial Action Summary Report provides a summary of the three full-scale ISCO injections performed in 2008, 2009, and 2010; evaluates results from groundwater performance monitoring and site-wide monitoring performed from 2008 through June 2011; and provides a current overview of the groundwater plumes and conceptual site model following ISCO remediation. Lessons learned, observations, and recommendations for the near-future at the Site are also discussed.

4.0 Chronology of Events

The major events and milestones associated with the OU3 groundwater remediation since issuing the 2007 ROD amendment are provided in the following table.

Date	Major Events and Milestone
September 26, 2007	ROD Amendment Signed
March 2008	Basis of Design Report for First Injection
July 2008	Construction of Injection Wells started
September 12, 2008	All injection wells installed and first round of three planned injections rounds underway
September 2008	Site Inspection Performed for OU3
September 2008	PCOR issued for the Site
January 2009	First ISCO Performance Monitoring Event
April 2009	Second ISCO Performance Monitoring Event
June 2009	Basis of Design Report for Second Injection
September 2010	1 Year Operational and Functional Period Ends
October 15, 2009	Second Injection Round Completed
February 2010	Third ISCO Performance Monitoring Event
April 2010	Fourth ISCO Performance Monitoring Event
August 2010	Basis of Design Report for Third Injection
October 19, 2010	Third and Final Injection Round Completed
May 2011	Fifth ISCO Performance Monitoring Event
August 2012	Sixth Performance Monitoring Event

5.0 Performance Standards and Quality Control

The methods, procedures, inspections and tests were performed in accordance with the Construction Quality Assurance Plan prepared as part of the EPA approved design. The construction contractors Quality Control Plans were implemented and verified by the independent Construction Quality Assurance Engineer, the EPA's remedial project managers, the EPA's remedial action oversight contractors, and the NHDES project managers. Construction completion is consistent with the January 1987 ROD and September 2007 Amended ROD.

6.0 Final Inspections and Certifications

In September 2008 the installation of the injections wells used for the first round of injections was completed and injections of base activated sodium persulfate started. An inspection of the constructed remedy was performed in September 2008 by EPA's remedial project manager. No significant punch list items were identified during the inspection. The OU3 remedy was determined to be operational and functional in September 2009.

Site specific health and safety plans (which included daily safety meetings) were prepared for the well installations, injections and monitoring activities. Compliance with the health and safety plans was the responsibility of AECOM's resident engineer and project manager. Compliance was monitored by EPA's project manager. No significant safety violations or injuries occurred during remedial activities.

7.0 Operation and Maintenance Activities

Fund lead long-term-remedial-action (LTRA) activities will continue until September 2019. Currently planned activities include site-wide groundwater and surface water sampling and analysis to monitor conditions on and off-site.

Currently a total of 23 monitoring site-wide wells located both east and west of Route 125 were sampled using low-flow, low-stress sampling methods. The site-wide monitoring well network is based on the network of locations that were sampled during the June 2011 site-wide monitoring round. Groundwater samples are analyzed for VOCs, 1,4-dioxane, SVOCs, total (unfiltered) TAL metals, and sulfate. Select samples (primarily east of Route 125) are also analyzed for alkalinity and chloride, and samples with elevated turbidity are field-filtered and submitted for dissolved TAL metals analysis.

Surface water samples are collected at four locations. Samples are collected from the two brooks that flow under Route 125 from west to east, into Country Pond Marsh. In each brook a sample is collected from an upstream location and from immediately upstream of the culvert that carries the surface water under the highway. Surface water samples are analyzed for VOCs, 1,4-dioxane, dissolved TAL metals, alkalinity, chloride, and sulfate.

Currently planned LTRA activities also include groundwater sampling and analysis to monitor performance of the ISCO injections. In the May 2011 ISCO performance monitoring round, groundwater samples were collected from 27 wells (13 from Area A, six from Area B, and eight from Area C). Low-flow, low-stress sampling methods were used to collect samples, which were submitted for fixed laboratory analysis of VOCs, 1,4-dioxane, TAL metals, and sulfate, except that wells in Area A were not analyzed for 1,4-dioxane based on historic sampling results. Groundwater was collected from select monitoring wells and tested for persulfate using field test kits approximately one week prior to sampling; persulfate was not detected in any well.

The frequency, number of groundwater wells sampled, number of surface water sampling locations and parameters analyzed for by EPA may change in the future after consultation with the NHDES. Starting in September 2019 the Site will transition to the O&M phase and at that time the State of New Hampshire will be responsible for all future Site monitoring and maintenance activities.

8.0 Contact Information

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ATTACHMENT

In-Situ Chemical Oxidation Remedial Action Summary Report
Ottati and Goss/Kingston Steel Drum Superfund Site,
Operable Unit 3, Kingston, NH

AECOM Environment

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In-Situ Chemical Oxidation Remedial Action Summary Report Ottati & Goss/Kingston Steel Drum Superfund Site, Operable Unit 3 Kingston, New Hampshire

EPA Contract No. EP-S1-06-01
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Final

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In-Situ Chemical Oxidation Remedial Action Summary Report Ottati & Goss/Kingston Steel Drum Superfund Site, Operable Unit 3 Kingston, New Hampshire

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Final

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1.0 Introduction

This report was prepared for the United States Environmental Protection Agency (EPA) by AECOM under EPA Contract No. EP-S1-06-01 to summarize the in-situ chemical oxidation (ISCO) remedial action activities performed from 2008 to 2011 for Operable Unit 3 of the Ottati & Goss/Kingston Steel Drum Superfund Site located along Route 125 in Kingston, Rockingham County, New Hampshire (Figure 1).

Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. § 9601 *et seq.*, a Remedial Investigation (RI) and Feasibility Study (FS) were originally prepared for the Site in 1986. EPA issued a Record of Decision (ROD) in January 1987 [USEPA, 1987] that selected remedial actions for all areas of the Site, based on the results of the 1986 RI and FS. Since that time, three of the four operable units (OU) into which the Site is divided (OU 1, 2, and 4) have undergone remediation (OU1 and OU4) or were closed via a Consent Decree (OU2). The remaining operable unit (OU3) consists of Site groundwater. Groundwater at the Site is contaminated with chlorinated Volatile Organic Compounds (VOCs); benzene, toluene, ethylbenzene, and xylenes (BTEX); and 1,4-dioxane. The 1,4-dioxane was not known to be present when the ROD was issued in 1987, but was discovered in Site groundwater in 2003. Subsection 3.1 provides a brief summary of the three contaminant source areas and the Site contaminant types that were present in each prior to ISCO remediation.

In 2006, EPA determined that the ROD-selected remedy for OU3 should be re-evaluated, to take into account the effects of remedial actions already performed at the Site that caused changes in the Site groundwater plumes; and to also consider advances in remedial technologies and overall knowledge of the Site since the 1986 FS was prepared. In 2007, EPA issued a Task Order to AECOM (formerly Metcalf & Eddy) to prepare a Feasibility Study Addendum Report for OU3 that evaluated the originally-selected remedy (pump and treat) in comparison to In-Situ Chemical Oxidation (ISCO), using data that were collected during pre-design investigations performed in the winter and spring of 2007 to better delineate the groundwater contamination. The FS Addendum evaluation suggested that an ISCO remedy would likely be more cost-effective and timely than pump and treat [M&E, 2007], and led EPA to issue a Proposed Plan in July 2007 to change the remedy for OU3 to ISCO. The New Hampshire Department of Environmental Services (NHDES) concurred with the Proposed Plan and comments from the citizens of Kingston were positive. EPA issued an Amended Record of Decision in September 2007 [USEPA, 2007] to select ISCO for OU3, and tasked AECOM to perform additional pre-design investigations, ISCO bench-scale and pilot-scale tests, and remedy design. ISCO bench scale and pilot-scale tests were completed between November 2007 and March 2008 (Task Order #0022). The bench-scale and field pilot-scale chemical oxidation testing is summarized in the In-Situ Chemical Oxidation Treatability Study Report [M&E, 2008A]. A Basis of Design Report (BODR) for ISCO was completed in March 2008 which presented the Site history and background, results from remedial design investigations and pilot tests, the remedial action objectives and cleanup goals, and the rationale for various design selections (e.g., injection well spacing, injection depth intervals, and oxidant dosages) for full-scale remedial action [M&E, 2008B]. The interim cleanup levels (ICLs) for groundwater and the maximum exceedances of those levels prior to performance of ISCO, but after both soil remedial actions (OU1 and OU4) had been completed, are presented in Table 1-1.

EPA tasked AECOM to perform ISCO remedial action for OU3 through Task Order #0028.

Mobilization, construction of ISCO injection wells and performance monitoring wells, and chemical oxidant injection commenced in July 2008. ISCO injections were completed within three groundwater residual source areas of the Site: Areas A and B on the portion of the Site owned by the State of New Hampshire (NH) and Area C or the North Plume area which is located on privately-owned land north of the NH-owned portion of the Site. The selected chemical oxidant (base-activated sodium persulfate) was delivered into the subsurface (below the groundwater table) using a combination of permanent wells and temporary direct push injection points. Injections were completed in September 2008, and EPA prepared a Preliminary Closeout Report for the Ottati & Goss/Kingston Steel Drum Superfund Site in September 2008 [USEPA, 2008]. Prior to ISCO remedial action, a site-wide groundwater and surface water monitoring round was performed in June 2008 to provide baseline data to monitor the overall site plumes, including wells located outside the ISCO injection areas.

The effectiveness of the first (2008) full-scale injection event was evaluated by the collection of groundwater samples from selected monitoring wells and injection wells. Two rounds of performance monitoring were performed in January 2009 and April 2009. These results were used to design a second injection event that was implemented during the fall of 2009. This second injection event was approximately one-half the magnitude of the first injection event and targeted portions of Areas A and B where performance monitoring showed that concentrations of contaminants of concern still exceeded MCLs by significant margins. No injections were performed in Area C in the fall of 2009 based on low concentrations of contaminants of concern detected in Area C wells sampled following the 2008 ISCO injection. The 2009 performance monitoring results and the injection design for the fall of 2009 were documented in Basis of Design Report Addendum #1 submitted to EPA in June 2009 [M&E, 2009].

A second site-wide groundwater and surface water monitoring round was performed in June 2009 to mirror the June 2008 (pre-ISCO) baseline sampling round and provide data to monitor the overall site plumes, including wells located outside the ISCO injection areas. Additional injection wells were installed in August 2009, and injections were completed by mid-October 2009.

In February 2010, AECOM performed the first of two planned performance monitoring rounds to assess the effectiveness of the fall 2009 ISCO injection program. The February 2010 event involved the sampling of groundwater from seventeen performance monitoring wells and ISCO injection wells with analysis for VOCs, metals, 1,4-dioxane (selected wells only), and sulfate. A second event was performed in April 2010 to collect additional groundwater data using the EPA mobile laboratory for analysis of selected VOCs. Soil samples were also collected in April 2010 and analyzed by the mobile laboratory to assess the progress of remediation of contamination adsorbed to soil in Areas A and B, and determine whether the potential for significant contaminant rebound exists. The third site-wide groundwater and surface water sampling event was performed in June 2010.

Based on the performance monitoring results following the first two injection events (2008 and 2009), one more ISCO injection event was planned for and implemented in the fall of 2010 to achieve further progress in attaining the remedial goals established for the Site. The performance monitoring results from 2009 and spring 2010 along with the ISCO injection design and details for the third injection in 2010 were documented in Basis of Design Report Addendum #2 submitted to EPA in August 2010 [M&E, 2010].

This ISCO Remedial Action Summary Report provides a summary of the three full-scale ISCO injections performed in 2008, 2009, and 2010; evaluates results from groundwater performance monitoring and site-wide monitoring performed from 2008 through June 2011; and provides a current overview of the groundwater plumes and conceptual site model following ISCO remediation. Lessons learned, observations, and recommendations for the near-future at the Site are also discussed.

2.0 Site Setting and History

This section presents a brief Site history and a summary of ISCO Remedial Action activities performed between July 2008 and October 2010 and associated performance monitoring. Evaluation and interpretation of performance monitoring data, including groundwater quality trends, is provided in Section 3.

2.1 Site History and Background

The Ottati & Goss/Kingston Steel Drum Superfund Site (the Site) is located along Route 125 in Kingston, Rockingham County, New Hampshire. The 58-acre Ottati & Goss/Kingston Steel Drum Superfund Site (the Site) is divided by Route 125 and is comprised of three distinct sections. The first section is a 5.89-acre parcel, historically referred to as the Great Lakes Container Corporation and Kingston Steel Drum (GLCC/KSD) area. This portion of the Site is fenced and is now owned by the State of New Hampshire. The second section is 29 acres and is owned partly by the Senter Transportation Company (BBS Realty Trust; parcel north of the State-owned parcel), and partly by Concord Realty Trust or John Peter Sebetes (south of the State-owned parcel). One acre of this 29-acre section was leased to Ottati and Goss, Inc. (O&G), and now this entire 29-acre parcel is at times referred to as the O&G portion of the Site. The third section is a 23-acre marsh located east of the GLCC/KSD section, between Route 125 and Country Pond. This parcel was purchased by the IMCERA Group, Inc. in 1984 and is referred to as Country Pond Marsh. A general Site map is provided as Figure 2. From the late 1950's through 1980 drum reconditioning activities were performed at the Site. The reconditioning operations included caustic rinsing of drums and disposal of the rinse water in a dry well near South Brook. Two leaching pits (lagoons) were also used at the Site and were known as the “Kingston Swamp” and the “caustic lagoon.” The Kingston Swamp and the caustic lagoon were reported to have been backfilled in 1973 and 1974, respectively.

A number of investigations and remedial activities have been conducted at the Site since 1980, which have revealed that soil throughout the Site was contaminated with VOCs, polychlorinated biphenyls (PCBs), semivolatile organic compounds (SVOCs), metals, and cyanide at high concentrations at numerous locations and that groundwater contaminated with VOCs, 1,4-dioxane, arsenic and metals in several distinct plumes. Dissolved VOCs were also detected in surface water in North Brook, South Brook, and Country Pond, and sediments in North Brook, South Brook, and the marsh contained VOCs and PCBs. Several remediation and removal actions were completed for VOC contaminated soil and sediment at the Site. In 1993, EPA, the New Hampshire Department of Environmental Services (NHDES), and the PRPs entered into a Consent Decree. This agreement resulted in most parties contributing to a cash settlement, rendering the remainder of the costs at the Site to be paid for by the Federal Superfund. A complete summary of groundwater investigation, delineation, and pilot testing performed from 2002 to 2008 is provided in the March 2008 BODR.

2.2 2008-2009 Remedial Action Site Activities

AECOM (formerly Metcalf & Eddy) received a Statement of Work on April 2, 2008 to provide remedial action support to EPA at the Ottati & Goss/Kingston Steel Drum Superfund Site (Task Order #0028). A summary of activities during this period includes:

- **June 2008 Baseline Site-Wide Monitoring**, with collection of samples from 29 monitoring wells and six surface water locations (three from North Brook and three from South Brook) was performed from June 16-19, 2008. Groundwater samples were submitted to a fixed laboratory for analysis of VOCs, 1,4-dioxane, SVOCs, and total (unfiltered) target analyte list (TAL) metals. In cases of elevated turbidity, samples were also field-filtered and submitted for dissolved metals analysis. Surface water samples were submitted for fixed laboratory analysis of VOCs, 1,4-dioxane, and dissolved (i.e., filtered) TAL metals. As base-activated sodium persulfate was selected as the ISCO reagent, field analyses were performed for persulfate and sulfate on groundwater and surface water samples.

- **Remedial Action Site Preparation** including but not limited to installation of a swing gate along the eastern perimeter fence to allow Area B injections east of the fence (west of the slope towards Route 125); demobilization of overhead power line in Area B; installation of erosion and sedimentation controls; and a public safety meeting with representatives from AECOM, the Town of Kingston, State of New Hampshire, EPA, and the injection contractors.

- **Installation of 18 Performance Monitoring Wells** in Area A (ten wells), Area B (three wells), and Area C (five wells) using hollow stem auger rigs. These wells along with historic monitoring wells and monitoring wells installed for the ISCO pilot testing established a performance monitoring well network to evaluate the effectiveness of the Remedial Action injections.

- **ISCO Injection Well Installation.** The injection plan detailed in the March 2008 BODR was prepared using input from the ISCO field pilot tests completed between December 2007 and March 2008, including oxidant dosages and injection volumes [M&E, 2008A]. Similar to the pilot tests, the persulfate dosages were 24% for Area A, 25% for Area B, and 22% for Area C. The BODR proposed injection through both ‘semi-permanent’ injection wells (approximately 20%) and direct-push injection rods (approximately 80%); however, during the 2008 injection event, surfacing of chemical oxidant solution around direct-push injection rods along with better injection flow rates through ‘semi-permanent’ injection wells led to the installation of a greater number of ‘semi-permanent’ injection wells. Upon completion of the 2008 injection activities, approximately half of the injection points were ‘semi-permanent’ injection wells. The installation of ‘semi-permanent’ injection wells was primarily completed by direct push 3”-casing with expendable drive points. The process involved driving casing to the desired injection depth, dislodging the expendable drive point, and installing 1” threaded PVC screen, riser, sand pack, and bentonite plug through the casing; retracting the casing as the well materials were installed. Several ‘semi-permanent’ injection wells in Area B and all the deep ‘semi-permanent’ injection wells in Sub-Area A2 were installed via hollow-stem auger using the same well installation methods with 2” PVC wells. The ‘semi-permanent’ wells were constructed as such because the intent is that the casings will be removed and the boreholes grouted once it has been determined that no further injections of any reagents will be performed at the particular locations.

- **ISCO Injection** through "semi-permanent" injection wells and direct-push injection points of a total of 394,400 pounds of sodium persulfate and 191,560 gallons of base-activated persulfate solution was completed into 201 injection points (146 injection wells and 113 direct push points) located in the three target treatment areas (Areas A, B, and C). Sodium hydroxide (NaOH) was used as the activator. The 2008 ISCO treatment areas are shown on Figure 5. A summary of the 2008 injections is provided in Table 2-1. Bottom-up direct-push injection points were completed using 1.25" rods with expendable drive points driven to the final injection depth (or as deep as possible). The drive point was ejected, and the rods pulled up two to four feet to provide an open borehole for injection. After the completion of injection into the first vertical interval, the rods were pulled up another two to four feet, and the process was repeated until injection into the entire vertical target zone was completed. In many cases, where the ISCO subcontractor could not inject at a particular depth, the rods were pulled back even farther and the injection volume increased, accordingly, for the new interval. In some cases it was necessary to drill additional hole(s) due to surfacing around the injection rods. As noted above injection performance led to a conversion from direct-push points to injection wells at a number of injection points. At each injection point, injection may have been performed via direct-push tooling and/or one or two discrete injection wells. Therefore the sum of Direct Push Injection Points (113) and Injection Wells (146 wells at 109 points) is greater than the total number of injection points (201).

- **Groundwater Monitoring for Residual Persulfate and Water Quality Parameters** was completed periodically to evaluate persistence and distribution of the injected persulfate as well as to assist in planning for groundwater sampling. Laboratory analysis will not provide an accurate measurement of concentration of VOCs in groundwater if residual persulfate is present in groundwater samples, as continued oxidation can occur between the collection and laboratory analysis, and it was planned that performance monitoring would not be conducted until the residual persulfate had completely dissipated. Based on ISCO guidance documents [Huling and Pivetz, 2006] and the ISCO pilot test completed between December 2007 and March 2008, persistence of the persulfate in the subsurface was anticipated to be between three and six weeks after injection. However, monitoring indicated that in the vicinity of some wells persulfate persisted four to seven months following injection. The high dosages injected, inadequate base activation (reaction kinetics are lower for unactivated as well as iron-activated persulfate), and/or low groundwater flow through lower permeable zones are likely causes for the extended persistence.

- **January 2009 Groundwater Performance Monitoring** was performed with collection of groundwater samples from January 12-15, 2009. The objectives of this sampling event were to assess the effectiveness of the injection activities, determine the horizontal and vertical target areas for follow-up ISCO injections based on the presence of residual contamination, and evaluate aquifer geochemistry following ISCO treatment. Groundwater samples were collected from 27 performance monitoring Wells: thirteen (13) wells from Area A, six (6) wells from Area B, and eight (8) wells from Area C. Groundwater samples were submitted for fixed laboratory analysis of VOCs, 1,4-dioxane, total (unfiltered) TAL metals, and sulfate. Samples were also analyzed for dissolved metals (i.e., were field-filtered) in cases of elevated turbidity. All analysis was performed by EPA Routine Analytical Services (RAS) or AECOM-subcontracted Delivery of Analytical Services (DAS) laboratories, with the exception of VOC analysis from five wells in which residual persulfate was still present on January 6, 2009. For these five wells, a calculated volume of ascorbic acid, as determined by trials performed on January 6, 2009 during the pre-groundwater sampling event tests for persulfate, was added to quench the residual oxidant. Approximately 1.0 mL of 1.0 normal (N) ascorbic acid solution was added to VOC vials for wells where the estimated residual persulfate concentration was greater than approximately 1,100 mg/L persulfate. Approximately 0.5 mL of 1.0 N ascorbic acid solution was added to VOC vials for wells where the estimated residual persulfate concentration was less than 1,100 mg/L. Due to the residual persulfate and the addition of ascorbic acid, these samples could not be analyzed by the RAS laboratories, and were analyzed for VOCs by the EPA Chelmsford laboratory using an alternative (head-space) method. Sulfate, which had previously been analyzed on-site using a field test kit, was performed by a fixed laboratory. When reviewing the VOC results for those samples preserved with ascorbic acid and analyzed by headspace method, compared to results for samples analyzed by the RAS laboratory and not quenched with ascorbic acid, it was noted that 1,1-dichlorothene (1,1-DCE) was detected only in those samples quenched with ascorbic acid and sent to the EPA Chelmsford laboratory. Additionally 1,1-DCE had not previously been detected in pre-ISCO groundwater samples. It has been speculated that the 1,1-DCE may have been formed via reaction of PCE or TCE in the sample vials with ascorbate free radicals that may have formed through the quenching of persulfate. Additionally, with the exception of 1,1-DCE, VOC concentrations in the five ascorbic acid preserved samples did not exceed their respective PRGs.

- **April 2009 Groundwater Screening Event**, with collection of groundwater samples from 40 wells with analysis by the EPA Region 1 mobile laboratory from April 22-24, 2009. Groundwater samples were collected from both the injection well network and the existing monitoring wells to provide sufficient horizontal and vertical definition of residual contamination to identify and delineate follow-up ISCO injection areas. Samples from select wells were analyzed by a RAS laboratory as confirmation samples at a frequency of 10%.

All groundwater sampling results from June 2008, January 2009, and April 2009 from within the ISCO injection areas and from the site-wide monitoring network (outside of the ISCO injection areas) in June 2008 are presented in Appendix J. Surface water results (detections) from June 2008 are also presented in Appendix J. A detailed summary of the activities performed as part of Remedial Action between June 2008 and May 2009 (Task Order #28) is provided in the June 2009 BODR Addendum #1 [M&E, 2009].

2.3 2009-2010 Remedial Action Site Activities

AECOM received an additional Statement of Work on May 19, 2009 to perform remedial action activities at the Ottati & Goss/Kingston Steel Drum Superfund Site (Task Order #0042) through the American Recovery and Reinvestment Act (ARRA). A summary of activities during this period includes:

- **Basis of Design Report Addendum #1** was prepared and submitted to EPA in June 2009 [M&E, 2009]. This BODR addendum provided details related to the follow-up ISCO activities proposed for 2009 based on remedial injection activities performed during 2008 and on post-injection groundwater performance monitoring results from January and April 2009. The BODR Addendum #1 proposed ISCO for a small area (approximately 380 square feet) in the southern portion of Area B, south of the chain-link fence in close proximity to South Brook (referred to as Area B-13). Due to the proximity of the brook, the BODR Addendum #1 and Contract Bid documents allowed the ISCO subcontractor to propose an oxidant and dosage.

- **June 2009 Site-Wide Monitoring**, with collection of samples from 32 monitoring wells (both east and west of Route 125) and four surface water locations from June 16-19, 2009. The monitoring well network sampled during June 2009 was the same as the June 2008 Baseline Site-Wide Monitoring Round, with the exception that three additional locations east of Route 125 (ME-8, W19, and W21) were included. Groundwater samples were submitted to a fixed laboratory for analysis of VOCs, 1,4-dioxane, SVOCs, total (unfiltered) total (unfiltered) TAL metals, and sulfate, and select samples were also analyzed for alkalinity and chloride. Groundwater samples with elevated turbidity were also analyzed for dissolved (filtered) metals. Surface water samples were submitted for fixed laboratory analysis of VOCs, 1,4-dioxane, dissolved (filtered) TAL metals, and sulfate. Field analysis was performed for sulfide and persulfate on groundwater and surface water samples.

- **Remedial Action Site Preparation** including repair and replacement of erosion and sedimentation controls and a public safety meeting with representatives from AECOM, the Town of Kingston, State of New Hampshire, EPA, and the injection contractors;

- **Installation of 47 ISCO Injection Wells and One Monitoring Well.** As described in the June 2009 BODR Addendum #1 the primary design modification was that all ISCO injections during the 2009 remedial action were to be performed through semi-permanent injection wells. Based on comparisons of direct-push injection and injection into semi-permanent wells from the 2008 full-scale injection, semi-permanent injection wells offered improved injection flow rates (see Table 2-1 and Table 3-7), less surficial breakout, and improved vertical distribution, particularly in deeper intervals where no injection flow ("dead-heading") was experienced in 2008 at numerous direct-push locations. In addition, direct-push refusal was encountered above elevations where ISCO delivery was targeted, and direct-push rod corrosion was a significant problem in 2008, leading to the need to replace rods. Using hollow stem auger rigs (4.25" inner diameter augers), 40 injection wells and one additional one-inch monitoring point were installed in Area A and one new injection well was installed in Area B within the fenced area. Six new injection wells were installed in Subarea B-13 (southern-most portion of Area B, south of the perimeter fence and adjacent to South Brook) using a direct-push rig. All new injection wells were constructed of one-inch Schedule 40 PVC, with screen intervals no longer than eight feet. Installation of the additional injection wells was completed in August and September 2009.

- **ISCO Injection** of a total of 204,600 pounds of sodium persulfate (111,600 gallons of base-activated persulfate solution) was completed into 94 injection wells located in Area A and Area B. Sodium hydroxide (NaOH) was used as the activator. All injection was performed into PVC wells that were previously installed in 2008 and newly installed in 2009 prior to injection mobilization. A design persulfate dosage of 18% was applied for both Area A and Area B. Injection activities began on September 10 and were completed on October 15, 2009 (26 work days). In Area B-13, modified Fenton's reagent (MFR), consisting of hydrogen peroxide and an iron catalyst (catalyzed peroxide), was proposed by the selected ISCO subcontractor for injection in 2009 due to the proximity of South Brook and concerns about sulfate impacts to the surface water body. Only limited volumes of peroxide were injected in this subarea due to the shallow groundwater table, low permeability around the injection wells, low achieved injection rates and volumes, and the exothermic nature of peroxide injection. As a result, there was a volume of hydrogen peroxide remaining on-site, and it was elected to perform additional MFR injection into Area A injection wells in the vicinity of the highest residual contamination observed in Spring 2009. This peroxide injection was performed following completion of injection of base-activated persulfate in Area A to provide additional oxidation and activation, as peroxide is another potential activator for sodium persulfate. The 2009 ISCO treatment areas are shown on Figure 6. Table 2-2 summarizes the injection activities performed in 2009.

- **Groundwater Monitoring for Residual Persulfate and Water Quality Parameters** was completed periodically following the 2009 injections to evaluate persistence of the injected persulfate as well as to assist in planning for groundwater sampling. Site monitoring in November 2009, February 2010, and April 2010 indicated that in the vicinity of some wells persulfate persisted three to six months following injection.

- **February 2010 Groundwater Performance Monitoring** with collection of groundwater samples from February 15-18, 2010. Groundwater samples were collected from 17 wells (seven from Area A, six from Area B, and four from Area C). During this round, samples were collected from the performance monitoring well network, as well as two injection wells where high concentrations of total VOCs were measured in 2009 (INJA-H15 and INJA-I21), and three additional monitoring wells in Area B to provide further characterization (MEB-SO4, MEB-TO3, ME-BO1D). Samples were not collected from wells where residual persulfate was measured the previous week. Low-flow, low-stress sampling methods were used to collect samples, which were submitted for fixed laboratory analysis of VOCs, 1,4-dioxane, total TAL metals, and sulfate. Samples were also field-filtered with analysis for dissolved TAL metals in cases of elevated turbidity.

- **April 2010 Groundwater Screening Event**, with collection of groundwater samples from 38 wells with analysis by the EPA Region 1 mobile laboratory from April 1-9, 2010. Groundwater samples were collected from both the injection well network and the existing monitoring wells to provide greater horizontal and vertical definition of residual contamination to further define follow-up ISCO injection areas. Samples from select wells were analyzed by a RAS laboratory as confirmation samples at a frequency of 10%.

- **April 2010 Soil Sampling Event.** In April 2010, soil samples were collected after completion of two rounds of ISCO injection at selected locations within Area A, Area B, and Area C to evaluate contaminant mass sorbed to soil particles that can be a source of rebound of contaminant concentrations in groundwater. Several of the 2010 soil sample locations were in close proximity to boring locations from the 2007 vertical profiling event, and the sampling locations are shown on figures in Appendix D. Soil samples were collected from 13 borings using a direct-push rig on April 5-7, 2010. Samples were analyzed for select VOCs by the EPA mobile laboratory, and a subset of these samples was also analyzed for the full VOC Target Compound List by a RAS laboratory to confirm the mobile laboratory results as well as to provide data for analytes not targeted by the mobile laboratory. In addition, a small number of soil samples were analyzed for 1,4-dioxane.

All groundwater sampling results from June 2009, February 2010, and April 2010 from within the ISCO injection areas and from the site-wide monitoring network (outside of the ISCO injection areas) in June 2009 are presented in Appendix J. Surface water results (detections) from June 2009 are also presented in Appendix J. Soil sampling results from April 2010 are presented in Appendix D, and comparison to baseline soil results from 2007 are shown where available. A detailed summary of activities performed as part of Remedial Action between June 2009 and June 2010 is provided in the August 2010 BODR Addendum #2 [M&E, 2010].

2.4 2010-2011 Remedial Action Site Activities

A summary of activities during this period includes:

- **June 2010 Site-Wide Monitoring** was performed June 21-28, 2010. A total of 41 monitoring wells located across the Site (both east and west of Route 125) were sampled using low-flow, low-stress sampling methods. The monitoring well network sampled during June 2010 was based on the same network of 32 locations that were sampled during the June 2009 Site-Wide Monitoring Round (including locations that were part of the Route 125 East sampling). Samples were collected from nine additional wells (five in Area A and four in Area B) to provide data concerning volatile contaminants that had not been previously investigated. Groundwater samples were submitted to fixed laboratories for analysis of VOCs, 1,4-dioxane, SVOCs, TAL metals [total (unfiltered) and also dissolved (filtered) if turbidity was elevated], and sulfate. Select samples (primarily east of Route 125) were also analyzed for alkalinity and chloride. Field analysis for persulfate was performed at locations not previously sampled to confirm that any residual persulfate had decomposed. The site-wide well network was adapted from earlier site-wide monitoring rounds to maintain consistency of wells sampled over time. The sampling data from the June 2010 event were collected for comparison to the June 2009 and June 2008 (baseline) events to evaluate the site-wide effects and trends of the ISCO treatment both inside and outside of the oxidant injection area. Data from the locations east of Route 125 also provide information concerning potential for migration of metals in the groundwater mobilized from the injection areas as well as changes in geochemistry that could affect the wetland areas (e.g., Country Pond Marsh).

  Surface water was also collected during the site-wide groundwater sampling round. Four samples were collected across the Site; two (2) were taken from North Brook and two (2) from South Brook. In each brook, a sample was collected from an upstream location and from immediately upstream of the culvert for each brook that carries the surface water under Route 125 from west to east, into Country Pond Marsh. Surface water samples were submitted for fixed laboratory analysis of VOCs, 1,4-dioxane, dissolved TAL metals, alkalinity, chloride, and sulfate.

- **Basis of Design Report Addendum #2** was prepared and submitted to EPA in August 2010 [M&E, 2010]. This BODR addendum provided details related to the follow-up ISCO activities proposed for 2010 based on experience performing remedial injection activities during 2008 and 2009 and on post-injection groundwater performance monitoring results from February, April, and June 2010. Groundwater sampling results from 2010 indicated that significant reduction in VOC concentrations occurred in Area A where the remaining hydrogen peroxide was injected that was not injected into Area B-13. For the 2010 injection, a combination of base-activated persulfate and MFR was proposed on a wider scale across the site to increase oxidation potential with the in-situ generation of more powerful free radicals (i.e., superoxide) as well as to increase VOC desorption from soil. This BODR Addendum assumed that the third full-scale ISCO injection in 2010 would be the final ISCO activity performed at the Site, and modifications to the oxidant dosing were made. For all injection wells, it was proposed to inject persulfate solutions first followed by addition of MFR to provide additional oxidation as well as activation of the persulfate already in the subsurface. Additionally, in some areas with higher levels of residual VOCs, injection of peroxide was proposed to be performed prior to persulfate injection to increase desorption of VOCs on soil through oxidation of the natural organic matter in soil that VOCs sorb do and from the gaseous reactions associated with peroxide that can agitate soil particles to achieve desorption.

- **Remedial Action Site Preparation** including repair and replacement of erosion and sedimentation controls and a kick off meeting with representatives from AECOM and the injection contractors.

- **ISCO Injections** were completed between September 20 and October 19, 2010. The first ISCO phase in 2010 was injection of hydrogen peroxide in areas with the highest residual VOC concentrations or where rebound was observed, to both oxidize VOCs and to encourage desorption. Existing dissolved iron concentrations were noted to be sufficient such that no iron catalyst was used. The second ISCO phase in 2010 was the injection of base-activated sodium persulfate into all injection wells in the 2010 scope of remediation. Lastly, modified Fenton's Reagent was applied at all injection points in the 2010 program. This approach was referred to as the persulfate sandwich (peroxide, persulfate, peroxide). A design persulfate dosage of 15% was applied for both Area A and Area B, and sodium hydroxide (NaOH) was used as the activator. In Area A, a total of 32,250 gallons of base-activated sodium persulfate solution (37,900 pounds of sodium persulfate) and 22,970 gallons of hydrogen peroxide (8%) were injected into 34 injection wells (total volume of 62,590 gallons, including 7,370 gallons of iron catalyst). In Area B, a total of 9,000 gallons of base-activated sodium persulfate (10,600 pounds of sodium persulfate) followed by 4,460 gallons of hydrogen peroxide (8% and 12%) were injected into 24 injection wells (total volume of 14,475 gallons, including 1,015 gallons of iron catalyst). Limited injection of base-activated persulfate was performed in Area B-13 (southern-most portion of Area B, south of the perimeter fence and adjacent to South Brook). The 2010 ISCO treatment areas are shown on Figure 7. Table 2-3 summarizes the injection activities performed in 2010. All injection was performed into PVC wells that were previously installed in 2008 and 2009, and no additional well installation was completed in support of the 2010 injection program.

- **May 2011 Groundwater Performance Monitoring** was performed with collection of groundwater samples from May 24-26, 2011. Groundwater samples were collected from 27 wells (13 from Area A, six from Area B, and eight from Area C). Low-flow, low-stress sampling methods were used to collect samples, which were submitted for fixed laboratory analysis of VOCs, 1,4-dioxane, TAL metals, and sulfate, except that wells in Area A were not analyzed for 1,4-dioxane based on historic sampling results. Groundwater was collected from select monitoring wells and tested for persulfate using field test kits approximately one week prior to sampling; persulfate was not detected in any well.

- **June 2011 Site-Wide Monitoring** was performed June 21-28, 2011. A total of 23 monitoring wells located across the Site (both east and west of Route 125) were sampled using low-flow, low-stress sampling methods. The monitoring well network sampled during June 2011 was based on the network of locations that were sampled during the June 2009 site-wide monitoring round (including locations that were part of the Route 125 East sampling), with the exception that wells that had previously been sampled as part of both the site-wide monitoring and ISCO performance monitoring were not sampled in June because they were sampled as part of the performance monitoring round in May 2011. Groundwater samples were submitted to fixed laboratories for analysis of VOCs, 1,4-dioxane, SVOCs, total (unfiltered) TAL metals, and sulfate. Select samples (primarily east of Route 125) were also analyzed for alkalinity and chloride, and samples with elevated turbidity were also field-filtered and submitted for dissolved TAL metals analysis.

  Surface water was also collected during the site-wide groundwater sampling round. Four samples were collected across the Site. Samples were collected from the two brooks that flow under Route 125 from west to east, into Country Pond Marsh. In each brook a sample was collected from an upstream location and from immediately upstream of the culvert that carries the surface water under the highway. Surface water samples were submitted for fixed laboratory analysis of VOCs, 1,4-dioxane, dissolved TAL metals, alkalinity, chloride, and sulfate.

All groundwater sampling results from June 2010, May 2011, and June 2011 from within the ISCO injection areas and from the site-wide monitoring network (outside of the ISCO injection areas) are presented in Appendix J. Surface water results (detections) are also presented in Appendix J.

3.0 Remediation Conclusions

The ISCO treatments were successful in reducing concentrations of site contaminants of concern in groundwater and soil. This section provides an overview of contaminant destruction, current groundwater conditions, and future recommendations. Subsection 3.1 provides a brief summary of the three source areas and the Site contaminant types that were present in each prior to ISCO remediation. Subsection 3.2 summarizes the results of the most recent performance monitoring sampling completed in May 2011 (and some wells in June 2011). The 2011 groundwater analytical data indicated that relatively low concentrations of VOCs remain in groundwater within the ISCO treatment areas. This section provides a summary of current concentrations of Site contaminants in groundwater and where groundwater standards are exceeded for each of the three source areas. Figure 8 presents a spatial overview of remaining groundwater exceedances of ICLs. A summary of the overall performance of the chemical oxidation treatment implemented at the Site is presented in Subsection 3.3. A number of lessons learned from implementing a large-scale ISCO remedial action are presented in Subsection 3.4. Recommendations for future monitoring are provided in Subsection 3.5.

3.1 Baseline Groundwater Contamination

Soil and groundwater at the Site were contaminated with chlorinated VOCs, BTEX VOCs, and 1,4-dioxane from both surface releases and pits/lagoons from the former drum re-finishing operations conducted at the Site. Site investigations determined that residual groundwater contamination existed in three distinct residual source areas, referred to as Area A, Area B, and Area C (Figures 2 and 5).

- Area A is located at the approximate center of the State-owned portion of the Site, and groundwater contamination consisted of a co-mingled plume of BTEX and chlorinated solvent VOCs, primarily TCE, PCE, and cis-1,2-DCE. The highest concentrations and potential source of VOC contamination were noted in the western portion of Area A, in the vicinity of a former caustic lagoon. 1,4-Dioxane concentrations are generally low (<8 ug/L) in Area A.

- Area B is located in the southeast corner of the State-owned portion of the Site, bordering Route 125. Based on historical data prior to the ISCO pilot test, the highest site-wide concentrations of 1,4-dioxane (>200 ug/L) and total VOC concentrations greater than 20,000 ug/L (primarily BTEX) were measured in groundwater samples collected from Area B. Both BTEX and chlorinated solvent VOCs were detected in soil and groundwater samples.

- Area C is located north of the State-owned portion of the site where a plume of lower total VOC concentrations lies roughly parallel to North Brook. The primary contaminant in Area C is 1,4-dioxane,which was measured at low concentrations (3 to 40 ug/L) in groundwater beneath a large area (greater than 2.5 acres). In addition, elevated concentrations of PCE (60 to 213 ug/L) and TCE (44 ug/L) were detected in groundwater at several vertical profiling locations completed in January 2008. A figure presenting 1,4-dioxane concentrations in groundwater measured prior to ISCO remedial action is included in Appendix C.

3.2 Post-ISCO Contamination – 2011

All groundwater exceedances of ICLs for VOCs and 1,4-dioxane are presented in the following discussion, as well as on Table 3-1, and shown spatially on Figure 8.

3.2.1 Area A

In Area A, the overall plume area and concentrations of total VOCs were reduced, and BTEX VOCs were significantly reduced. From samples collected in May 2011 in within the injection area of Area A, all overburden monitoring wells had at least one VOC exceed an ICL and/or AGQS. In some wells the measured concentration was less than 5 to 10 ug/L over the criteria, and some VOCs that exceed criteria represent chemical oxidation byproducts that were not present prior to ISCO activities, including chloromethane and carbon disulfide (see Section 3.3.3). Groundwater concentrations are below ICLs for all BTEX analytes, and 1,4-dioxane has not been observed in wells within the ISCO injection area at a concentration exceeding the ICL (3 ug/L) following the first ISCO injection completed in 2008. Below is a summary of the ranges of groundwater ICL and/or AGQS exceedances in Area A that were measured in May 2011:

Analyte	Criterion (ug/L) and Type	Number of Exceedances	Smallest Exceedance (ug/L)	Greatest Exceedance (ug/L)	Location of Greatest Exceedance
Primary Contaminants					
PCE	5 – ICL	7	5.1	140	ME-A01D
TCE	5 – ICL	7	5.5	47	ME-A01D
cis-1,2-DCE	70 – ICL	5	110	940	MEPM-A15S
Vinyl Chloride	2 – ICL	5	2.9	79	MEPM-A15S
1,2-Dichloroethane	5 – ICL	2	12	31	MEPM-A18
Likely Byproducts					
Chloromethane	30 – AGQS	5	41	3000	MEPM-A18
Bromomethane	10 - AGQS	2	92	170	MEPM-A18
Carbon Disulfide	70 - AGQS	1	140	140	MEPM-A18
Methylene Chloride	5 – AGQS	4	10	18	ME-A01D
1,2-Dichloropropane	5 – AGQS	1	5.8	5.8	MEPM-A15D

3.2.2 Area B

In groundwater samples collected from the six performance monitoring wells within the fence in Area B in May 2011, concentrations of VOCs and 1,4-dioxane decreased. Groundwater concentrations were below Site ICLs in all wells within the injection area for cis-1,2-DCE, vinyl chloride, and all BTEX VOCs. Only one well exceeded the AGQS of 30 ug/L for chloromethane (MEPM-B10S 54 ug/L and 76 ug/L in field duplicate). In well ME-SO4 in Area B-13, the concentration of TCE was measured to be 72 ug/L (compared with 634 ug/L in April 2009, analyzed by EPA Mobile Lab), but with the exception of TCE there are no longer other VOCs that exceed their respective ICLs in this well. In several wells the measured concentration was less than 5 to 10 ug/L over the criteria, including 1,4-dioxane where all performance monitoring wells in Area B are less than 4 ug/L over the AGQS, with the exception of well ME-SO4 in Subarea B-13. Below is a summary of the ranges of groundwater ICL and/or AGQS exceedances in Area B that were measured in May 2011:

Analyte	Criterion (ug/L) and Type	Number of Exceedances	Smallest Exceedance (ug/L)	Greatest Exceedance (ug/L)	Location of Greatest Exceedance
Primary Contaminants					
PCE	5 – ICL	4	6.2	17	ME-B02D
TCE	5 – ICL	5	11	72	MEB-S04
1,4-Dioxane	3 – ICL	7	3.2	24	MEB-S04
Likely Byproducts					
Chloromethane	30 – AGQS	1	76 (54 in FD)	76 (54 in FD)	MEPM-B10S
Bromomethane	10 - AGQS	1	17 (10 in FD)	17 (10 in FD)	MEPM-B10S

FD = Field Duplicate

3.2.3 Area C

No VOCs exceed Site ICLs in samples from wells within the injection area. In May 2011 only four wells within the injection area exceed the NH AGQS for 1,4-dioxane (3 ug/L):

- MEPM-C13D: 3.2 ug/L;
- ME-CO5D: 5.8 ug/L;
- MEPM-C11: 8.0 ug/L;
- B5A: 8.4 ug/L.

With a maximum 1,4-dioxane concentration of 8.4 ug/L, natural attenuation is anticipated to reduce concentrations in Area C below the AGQS within the near future (five to fifteen years) based on observed decreases in 1,4-dioxane concentration in Area C between 2009 and 2011. Since this area is a wetland with limited development potential, it is not anticipated that this area will be used during this period.

3.3 Chemical Oxidation Performance

This section summarizes the performance of the chemical oxidation treatment implemented at the Site with a focus on the changes to primary Site contaminants, inorganic analytes (metals, sulfate), groundwater geochemical parameters, and changes in soil concentrations. Throughout the remedial action, groundwater samples were collected from both designated performance monitoring wells and injection wells to evaluate changes in contaminant concentrations and groundwater quality parameters as well as aid in design of additional ISCO injection programs. The 18 new monitoring wells installed in July 2008 (MEPM series) were not sampled prior to ISCO injections due to the compressed schedule during 2008. The performance monitoring wells identified in the BODR documents are intended to be compliance points and particular emphasis was placed on sampling of these wells in 2011.

3.3.1 VOCs

Remediation using chemical oxidation successfully reduced the concentrations of the primary Site VOCs (PCE, TCE, cis-1,2-DCE, benzene, toluene, ethylbenzene, xylenes) in groundwater. BTEX VOCs responded particularly well to ISCO treatment as these compounds can be quickly oxidized and also have less stringent ICLs. Chlorinated VOCs also were significantly reduced. Prior to ISCO, several ICL exceedances of VOCs were noted in Area C in both monitoring wells and vertical profiling points. From the 2011 groundwater samples collected within the Area C injection area, no VOCs exceed Site ICLs, although some minor exceedances are present in wells outside the injection area (see Figure 8). The remainder of this section primarily focuses on Area A and Area B.

Since many performance monitoring wells were not sampled prior to the first ISCO injection, post-injection VOC concentrations in samples from performance monitoring wells collected in 2009 following the first injection were compared to pre-ISCO groundwater vertical profiling results in each area (Table 3-2A) and a limited number of wells sampled in June 2008 (Table 3-2B) to evaluate VOC destruction from ISCO. January 2009 groundwater concentrations indicated reduced contaminant concentrations as well as a reduction in overall plume size, especially in Area A (see Appendix B). For locations where comparison to pre-ISCO concentrations was possible, individual VOCs were reduced by 65 to >95%.

Following the second ISCO event in 2009, groundwater performance monitoring data collected during February and April 2010 created a robust data set to more fully evaluate ISCO performance after two rounds of full-scale ISCO, and numerous monitoring wells and injection wells were sampled during both 2009 and 2010 (before and after the second round of ISCO injection). Table 3-3 compares concentrations of primary Site VOC contaminants in performance monitoring wells before and after the 2009 ISCO injection event, which indicates significant reductions in concentrations where ISCO was performed in 2009. Additional comparison of VOC concentrations in Site injection wells (samples analyzed in the EPA mobile laboratory before and after the 2009 ISCO injection) is provided in Appendix C. In many wells, individual VOC analytes were reduced by 65 to >95% when comparing samples before (2009) and after the second injection (2010). Groundwater sampling results indicated that significant reduction in VOC concentrations occurred in areas near where additional hydrogen peroxide was injected following the injection of base-activated persulfate (i.e., INJ-H14, INJ-H15, INJ-I21, MEPM-A15S, see Groundwater Comparison 2009 vs. 2010 Table in Appendix C). In addition, reductions in concentrations of VOCs were noted in numerous wells where ISCO was performed in

2008 but not in 2009, due to other attenuation processes and as a result of contaminant mass reduction in areas upgradient of these monitoring wells.

Increasing concentrations of primary Site VOCs were observed at some locations over time. Desorption of VOCs from the soil and migration of residual contamination from upgradient areas not treated, as well as naturally occurring reductive dechlorination, are potential sources for these increases. Contaminant migration is more likely a contributor for wells in areas at the upgradient portions of the treatment areas (i.e., MEPM-A10) and locations where ISCO was not performed in 2009 and/or 2010 (i.e., MEPM-A16). Reductive dechlorination applies specifically to cis-1,2-DCE and vinyl chloride and is discussed further in Section 3.5.1. In many monitoring wells where primary Site VOC concentrations were noted to increase over time, the concentrations increased between 2009 and 2010 followed by a decrease from 2010 to 2011, even in areas not treated in 2010. This trend suggests that ISCO continued to treat dissolved and source VOC contamination, thereby reducing both desorption and VOC migration with time. VOC desorption is more likely a factor in monitoring wells in areas where ISCO injections were performed in two or three events. Additionally, following significant reduction in concentrations of VOCs in groundwater as a result of ISCO, small increases in concentration (less than 10 to 15 ug/L) in a subsequent sampling event can appear as large negative percent changes on Table 3-3.

The third ISCO injection in 2010 was more spatially targeted than the first two remediation events, and included a combination of oxidants to treat residual contamination. For the 2010 injection, a combination of base-activated persulfate and MFR (catalyzed peroxide) was injected for oxidation of VOCs as well as to increase VOC desorption from soil through oxidation of the natural organic matter in soil that VOCs sorb to, and from the gaseous reactions associated with peroxide that can agitate soil particles to achieve desorption. It was assumed that no further ISCO activities would be performed, and performance monitoring activities in 2011 focused on the performance monitoring wells identified in the BODR documents. Concentrations of primary Site VOCs generally decreased an additional 20 to >95% in monitoring wells located within the 2010 injection areas in both Area A and Area B when comparing concentrations from 2010 and 2011. Site VOC concentrations in performance monitoring wells away from 2010 ISCO injections were inconsistent, both increasing and decreasing. Concentration increases were more frequently observed in wells in the western (upgradient) portions of Area A and Area B.

Table 3-3 compares concentrations of the primary Site VOC contaminants in Area A and Area B in the designated performance monitoring wells. The table focuses on VOC reductions from the second (2009) and third (2010) injections since pre-ISCO data is not available for many performance monitoring wells, with the exceptions of monitoring wells sampled prior to any full-scale ISCO activities. The overall concentration reduction (percent removals) cannot be evaluated in most wells due to limited pre-ISCO well data. Table 3-3 demonstrates that ISCO reduced VOC concentrations where it was applied during each event, and in most cases subsequent injections treated concentrations that had rebounded. The second and third injections did result in further reduction in groundwater concentrations in most wells in Areas A and B (55-99% reduction in total VOCs comparing 2009 and 2011 data; total VOC here is the sum of PCE, TCE, cis-1,2-DCE, and BTEX). Several wells did however have increases in total VOCs and/or the primary Site VOCs, but the concentrations were generally low (i.e., on the order of tens of ug/L). These data highlight the challenges of using ISCO for meeting and maintaining drinking water standards (e.g., single digit ug/L concentrations), especially in lower permeability soils. Section 3.5 discusses natural attenuation processes that are likely to follow ISCO. Further, it should be noted that increases in concentrations of cis-1,2-DCE in several wells post-ISCO may be a result of biologically mediated incomplete reductive dechlorination.

Several VOC compounds were generated as byproducts of the in-situ oxidation reactions, including chloromethane, bromomethane, acetone, and carbon disulfide. These analytes were not detected in any samples prior to ISCO remediation. Detected concentrations of ISCO by-products are summarized in Table 3-4, and further discussion of these by-product VOCs is included as Subsection 3.3.3.

3.3.2 1,4-Dioxane

In Area A, 1,4-dioxane was only detected at low concentrations prior to ISCO (maximum concentration of 12 ug/L at well GZ-11A). No groundwater sample from Area A has been collected with a 1,4-dioxane concentration exceeding the AGQS of 3 ug/L following the first ISCO injection completed in 2008.

Historically, the highest concentrations of 1,4-dioxane were measured in the southeastern portion of the Site near the former operations building and Route 125 (Area B). The highest concentration at the Site was detected in well MEOW-3 (260 ug/L in December 2005), and in June 2008 prior to the first full-scale ISCO injection the concentration was 110 ug/L. The effectiveness of persulfate in destroying 1,4-dioxane in-situ at the Site was not clearly demonstrated by the pilot test, where in Area B, 1,4-dioxane concentrations decreased slightly (20 to 40%) in three of four monitoring wells and a limited increase was observed in the fourth well (ME-BO2D). 1,4-dioxane concentrations from other wells within the treatment footprint of Area B ranged between 21 and 48 ug/L preceding the 2008 full-scale ISCO injection (4 pilot test wells in March 2008 and well ME-04A in June 2008). In groundwater samples collected after full-scale ISCO (May and June 2011), the 1,4-dioxane concentrations ranged between 1.5 and 6.7 ug/L in seven wells within the ISCO treatment area, including a concentration of 5.5 ug/L in well MEOW-3. Additionally, well ME-BO1D was not sampled in May 2011, but the 1,4-dioxane concentration was reduced to 5.1 ug/L in February 2010, compared with 48 ug/L in March 2008. Overall, as a result of the three full-scale ISCO events, concentrations of 1,4-dioxane were reduced by 68 to 95% in monitoring wells in Area B (with some additional destruction as a result of the pilot test activities). Generally, 1,4-dioxane removals (in percent) were less significant with each subsequent injection round, likely due to the decreasing concentrations of 1,4-dioxane. Since concentrations of other VOCs were generally low in well MEOW-3, injections were only performed in the vicinity of this well in 2008 and 2010. In well MEOW-3 where pre-ISCO 1,4-dioxane concentrations were greater, concentration reductions of 88% and 72% were observed across two injection events (from 110 ug/L in June 2008 to 22 ug/L in June 2009 and from 20 ug/L in June 2010 to 5.5 ug/L in June 2011). 1,4-Dioxane was also detected in Subarea B-13, south of the perimeter fence within Area B. A sample collected and analyzed in August 2009 by the chemical oxidation specialty subcontractor (ISOTEC) exhibited a concentration of 37.8 ug/L. Due to the shallow groundwater table and low permeability soil within Subarea B-13, only limited volumes of chemical oxidant were injected into this subarea in 2009 and 2010. However, the 1,4-dioxane concentration did decrease to 29 and 24 ug/L in February 2010 and May 2011, respectively.

In Area C, the primary contaminant is 1,4-dioxane, which prior to the 2008 ISCO injections had been detected at low concentrations that exceed the NH AGQS (3 ug/L) within an area greater than 2.5 acres (see Figure with 2007 1,4-dioxane concentrations in Appendix B). The highest concentration of 1,4-dioxane detected during groundwater vertical profiling in January 2008 was 32 ug/L. The horizontal extent of ISCO remediation in Area C in 2008 was generally bounded within the area where groundwater concentrations exceeded MCLs for PCE or TCE or exceeded nine times the AGQS for 1,4-dioxane (27 ug/L). Following the one round of ISCO, performance monitoring in January 2009 indicated reduced concentrations of 1,4-dioxane, as well as five wells in Area C that exceeded the AGQS for 1,4-dioxane (3 ug/L), with concentrations ranging between 3.7 and 12 ug/L. Due to the lower concentrations of 1,4-dioxane, as well as low levels of PCE and TCE, no additional ISCO was performed in Area C after the first round in 2008. Continued performance monitoring in Area C has resulted in varying levels of attenuation of 1,4-dioxane concentrations from 2009 to 2011 (13 to 75% reduction). May 2011 concentrations of 1,4-dioxane in the eight performance monitoring wells within the ISCO treatment area ranged between 0.34 and 8.4 ug/L, with only four wells exceeding the AGQS of 3 ug/L (3.2 ug/L in MEPM-C13D, 5.8 ug/L in ME-CO5D, 8.0 ug/L in MEPM-C11, and 8.4 ug/L in B5A).

ISCO activities performed at the Site appear to have been successful at reducing concentrations of 1,4-dioxane in downgradient monitoring wells east of Route 125. This reduction is particularly evident in bedrock well GZ-4B (approximately 215 feet downgradient from the edge of the ISCO area), where three samples collected between December 2007 and June 2009 were stable between 190 and 210 ug/L. Subsequent decreases in 1,4-dioxane concentrations were noted in well GZ-4B in June 2010 (140 ug/L) and June 2011 (95 ug/L) at a rate more rapid than has been observed through natural attenuation. Reductions have also been measured in well MEOW-1 which is closer to the ISCO treatment area (135 feet). Three samples from MEOW-1 from March 2004 to June 2008 showed a reduction from 27 to 19 ug/L (30% reduction over four years), and samples collected in June 2010 and June 2011 were 11 and 8 ug/L, respectively (58% reduction over three years).

All groundwater sampling results from 2008 to 2011 for 1,4-dioxane are presented in Appendix J. In addition, temporal trends in 1,4-Dioxane concentrations before and after ISCO are plotted for select wells in Appendix B.

3.3.3 ISCO By-Products

ISCO by-products, including chloromethane, bromomethane, methylene chloride, carbon disulfide, and acetone, have been measured at elevated concentrations in numerous monitoring wells in both Areas A and B (see Table 3-4). These by-products were not detected in groundwater prior to ISCO injections, except at negligible concentrations (generally less than 1 ug/L), and these chemicals are observed at numerous sites where persulfate has been injected [Battelle, 2010; USEPA, 2006; AECOM, 2010]. Their formation is primarily observed where iron activation of persulfate is used, as oxidation kinetics are lower for iron-activated persulfate compared with other methods of activation. The high iron concentrations in groundwater (in excess of 20 mg/L) at the Site may have activated the residual persulfate after groundwater pH was no longer alkaline. The reaction pathways for halomethanes (chloromethane, bromomethane, methylene chloride) is not completely understood, but it is believed that sulfate radical may react with halogens (i.e., chloride) to form halogen-based radicals that react with reduced organic matter forming halogenated organic molecules [Battelle, 2010].

There is not a promulgated EPA MCL or a Site ICL for chloromethane, bromomethane, or acetone; however, the state of New Hampshire has adopted the EPA Drinking Water Lifetime Health Advisory (LHA) for chloromethane of 30 ug/L as a Method 1 AGQS. The Method 1 AGQS values for bromomethane and acetone are 10 ug/L and 6,000 ug/L, respectively. Following the third ISCO injection in 2010, May 2011 groundwater concentrations of chloromethane ranged from 0.3 to 3,000 ug/L and bromomethane ranged from 2.5 to 170 ug/L. As a result of the 2010 ISCO injections and further natural attenuation, both chloromethane and acetone decreased in nearly all performance monitoring wells by 70 to 99% from concentrations measured in spring 2010 following the second ISCO injection.

Additionally, the concentration of carbon disulfide measured in 2011 at well MEPM-A18 (140 ug/L) exceeded its AGQS value (70 ug/L). The concentrations of methylene chloride (or dichloromethane) in four wells in Area A (11 to 18 ug/L) exceeded the respective AGQS value. Based on observations from the site-specific pilot test (groundwater samples at six and 12 weeks after injection) and from other AECOM ISCO projects, these analytes are expected to naturally attenuate when aquifer geochemical conditions revert fully to pre-ISCO conditions.

3.3.4 SVOCs

Laboratory analysis has been performed for SVOCs in groundwater. Historical investigations performed prior to ISCO activities as well as samples collected as part of the site-wide monitoring rounds (June 2008, June 2009, June 2010, June 2011) have confirmed that SVOCs are no longer contaminants of concern in any of the remediation areas (Areas A, B, or C). Naphthalene was measured in groundwater at concentrations greater than the ICL (20 ug/L) in three wells during Site-Wide Monitoring in 2008: GZ-11A in Area A (55 ug/L), MEOW-4 upgradient of Area B (21 ug/L), and MEOW-1 east of Route 125 (40 ug/L). As a result of ISCO and/or natural attenuation naphthalene concentrations in these three wells has reduced to below the ICL value. The most significant decrease was noted in well GZ-11A which is located within the ISCO injection area (19 ug/L in 2009 and 2 ug/L in 2010). All groundwater sampling results from 2008 to 2011 for SVOCs are presented in Appendix J.

3.3.5 Geochemical Changes (pH and ORP)

Prior to ISCO activities at the Site, groundwater had circum-neutral to alkaline pH and was slightly reducing with varying degrees of these conditions across the Site. In Area A, baseline pH was observed to be approximately 6.7 to 10.7 from 2007 vertical profiling and 7.1 to 9.8 in the pilot test area. Pre-ISCO ORP values ranged between -110 to -270 mV in Area A. In Area B, pre-ISCO pH and ORP ranged from 8.2 to 9.9 and -100 to -200 mV, respectively. In Area C, pre-ISCO pH and ORP ranged from 6.5 to 7.2 and -80 to -110 mV, respectively.

Base-activated sodium persulfate was applied to the subsurface of the Site during the pilot test and each of the three full-scale ISCO events. Through the addition of sodium persulfate, ORP and specific conductivity are expected to increase in nearby groundwater due to the strong oxidizing nature of persulfate and the high concentrations of ions introduced. Due to addition of sodium hydroxide, groundwater pH is intended to increase to alkaline conditions after each injection. Following the increase in pH, a drop of pH in monitoring wells within the injection areas can occur from the generation of protons, generating sulfuric acid in groundwater as a result of the breakdown of sodium persulfate. Temporal trends of pH and ORP in select ISCO area performance monitoring wells are provided in Appendix E, including the increase in pH and ORP immediately following an injection of base-activated sodium persulfate, decrease in pH after the injection from breakdown of persulfate, and increase of pH and decrease of ORP from groundwater flowing into the treatment areas.

Following each ISCO event, ORP values in groundwater initially increased (200 to >500 mV), and then ORP decreased as reducing groundwater flowed into the injection areas. Monitoring of water quality parameters in monitoring wells within the ISCO areas was not performed while the first ISCO injection was ongoing in 2008, and therefore the expected increase in alkaline conditions was not recorded during that injection event. Monitoring of water quality parameters in September 2008 shortly after injection was completed in Area A and Area C indicated acidic conditions in all performance monitoring wells. In addition, mixing logs from 2008 reported solution pH < 10, indicating that some persulfate batches were not insufficiently dosed with hydroxide.

Based on the much shorter persistence of alkaline conditions compared to presence of persulfate, for 2009 ISCO activities it was specified that the activated persulfate solution must have a pH of at least 13 prior to injection into the subsurface. This elevated solution pH was intended to allow alkaline conditions to exist slightly longer in the subsurface to allow generation of free radicals (•SO4-) as well as neutralize the acidification of groundwater caused by persulfate decomposition. In addition the persulfate dosage was lowered in 2009 and 2010 to reduce the groundwater acidification potential. During the 2009 and 2010 ISCO events, oxidant solutions were injected in alternating batches where a fraction of the total volume proposed for a particular well was injected at any one time to improve distribution, reduce groundwater mounding, and prolong base activation time, versus continuously injecting the entire volume at a given injection point. Monitoring of water quality parameters during the injections in 2009 showed that alkaline conditions were only maintained for a few days (three to seven days) following injection of each batch, but several alternating injections to add the complete volume did in fact extend the period of time where alkaline conditions were available for free radical generation from the persulfate.

For the 2010 ISCO activities both hydrogen peroxide (MFR) and sodium persulfate were injected as oxidants. By reducing the persulfate mass added to the subsurface the potential acidification was reduced. In addition, with the application of hydrogen peroxide following injection of base activated persulfate, the persistence of sodium persulfate was shortened due to rapid activation of the persulfate by peroxide (compared to persulfate persistence of four to seven months following 2008 and 2009 injections). The more rapid consumption of persulfate and subsequent breakdown to sulfuric acid has likely aided in reducing the time for groundwater pH to increase to near baseline values in 2011.

From the May 2011 monitoring data (Table 3-5), the pH in a majority of monitoring wells in Area A had returned to within the range of baseline values. For most of the wells where pH was lower than the pre-ISCO range in May 2011, injection was completed in nearby injection wells in 2010. Approximately half of the performance monitoring wells in Area A recorded reducing (negative) ORP values in May 2011. In Area B, the performance monitoring wells screened in deep overburden had pH and ORP values similar to baseline conditions, and negative ORP values were recorded in all monitoring wells in Area B except ME-B10S. Although only one sodium persulfate injection was completed in Area C (in 2008), groundwater conditions are slower to return to baseline conditions. Two and half years following injection, pH and ORP values were approximately equivalent to baseline conditions in only two performance monitoring wells out of eight. However, in Area C the pH, ORP, and specific conductivity are all trending towards baseline values as shown in plots in Appendix E. Soils have been observed to be finer in Area C than in Area A, which may be indicative of slower groundwater velocities, and thus a longer period of time to return to baseline conditions.

Impacts of ISCO injections on groundwater chemistry have also been observed in site-wide monitoring wells located downgradient of the injection areas (80 to 350 feet). Increases in specific conductivity (10 to 100 times) have been noted in wells east of Area A (ME-11D, MEOW-6), and east of Area B east of Route 125 (MEOW-1, GZ-4A, GZ-4B), and other downgradient wells have had smaller increases as well. In general, from the annual site-wide monitoring conducted in June, specific conductivity values peaked in 2010 with noted decreases in 2011, except in wells MEOW-1 and MEOW-6 where the specific conductivity continues to trend upward. In addition, increases in ORP (50 to 100 mV), increases in dissolved oxygen (0.2 to 7 mg/L), and decreases in pH (approximately 0.5 to 1.5 pH standard units) have also been noted in several wells, particularly in monitoring wells close to Area B (MEOW-4 and wells east of Route 125). These changes are expected changes to groundwater as a result of application of a chemical oxidant.

3.3.6 Inorganic Analytes

Metals

As described above, adding an oxidant to the subsurface increases ORP and alters pH. Shifts in these geochemical conditions in the aquifer as a result of ISCO can impact the dissolved concentrations and mobility of many metals. Most metals are generally more mobile at low pH and negative ORP; however, chromium is the exception and is more mobile and more toxic under oxidizing conditions (as Cr^{6+}). Acidic pH can occur as a result of sodium persulfate ISCO because persulfate solutions are inherently acidic [FMC, 2007]. Formation of sulfuric acid (H_2SO_4) and generation of protons also occurs from the oxidation reactions of persulfate. For example, the reaction for direct oxidation of TCE with persulfate is the following:

$$3\ Na_2S_2O_8 + C_2HCl_3 + 4\ H_2O \rightarrow 6\ SO_4^{2-} + 9\ H^+ + 3\ Cl^- + 6\ Na^+ + 2\ CO_2$$

Alternatively, activating persulfate with a strong base would increase the aquifer pH. Many metals are less mobile under alkaline conditions; however, solubility of some metals also increases at high pH (i.e., pH >10). Additionally, there are impurities in remediation chemicals that are introduced to the subsurface during ISCO injections; noted impurities in sodium persulfate include potassium, phosphate, calcium, and boron (see Appendix F, analysis by FMC, 2011).

Groundwater performance monitoring results showed that concentrations of many metals did increase as a result of the ISCO treatments. The resulting increases in metals concentrations have resulted in temporary exceedances of ICL or AGQS values. In general, these exceedances have been at monitoring wells where the groundwater was acidic (generally pH < 4.5; see pH versus metal concentrations plots in Appendix F). Groundwater pH values have generally been increasing since the first ISCO injection in 2008 (Appendix E) as a result of smaller persulfate ISCO footprints in 2009 and 2010, lower persulfate dosages applied in 2009 and 2010 compared to 2008, increased base dosages in 2009 and 2010, and advection of upgradient groundwater with circum-neutral to slightly basic pH into the ISCO treatment areas. Accompanying the increasing groundwater pH measured site-wide has been decreasing metals concentrations, as shown by the temporal concentrations plots in Appendix F. Arsenic and manganese were detected in groundwater exceeding AGQS criteria prior to ISCO injections. It is assumed that the source of iron, arsenic, and manganese is the local soils. The elevated sodium is from the sodium persulfate oxidant; the elevated potassium is likely from the sodium persulfate oxidant as well as from cation exchange from Site soils following the addition of large amounts of sodium. However, the source of other metals (i.e., beryllium, nickel, lead) that were measured at increased concentrations in groundwater is unknown and could have been from oxidant impurities, native soils, or a combination.

Arsenic remains widespread in groundwater, and the concentration exceeded the AGQS (10 ug/L) in 42 of the 51 wells sampled in 2011 in Area A, Area B, Area C, and east of Route 125 (including wells outside injection areas and bedrock wells; see Table 3-6). Pre-ISCO arsenic concentrations were approximately 20 to 130 ug/L, and in the 2011 samples only 21 of the above-mentioned wells had concentrations greater than 50 ug/L and only four wells had arsenic concentrations greater than 130 ug/L. Arsenic concentrations after ISCO are generally similar to those measured prior to ISCO remediation. The highest arsenic concentration measured in groundwater in 2011 was at well MEPM-

A15D (5420 ug/L), where the pH was recorded to be 12.7. In addition, arsenic concentrations have been observed to have increased in several wells in Area B in 2011 (ME-04A, MEPM-B10D), and these wells correspond to very reducing (ORP < -400 mV) and high pH groundwater (pH > 9). Arsenic in the environment strongly sorbs to iron surfaces, and therefore the solubility of arsenic is influenced by the presence of iron precipitates. Under reducing (negative ORP) and/or alkaline (pH > 11) conditions ferric iron (Fe^{3+}) precipitates have likely been reduced and are present as dissolved iron species (Fe^{2+} or Fe^{3+}), and as a result arsenic that was sorbed to iron surfaces has been released and/or there are insufficient iron surfaces available for all of the arsenic to adsorb onto.

There were only two exceedances in 2011 of the lead ICL/AGQS (15 ug/L) in overburden monitoring wells within the injection areas, and both were in Area B. In Area A, the shallow bedrock well GZ-11B also had a lead exceedance observed (8.3 ug/L and 30.2 ug/L in the field duplicate). Three overburden wells exceeded the AGQS for cadmium (5 ug/L), but all exceedances were less than 10 ug/L. Exceedances of chromium, selenium, and beryllium were only measured in wells with low pH values (pH less than or equal to 4.5) or high pH values (pH > 12) that also had slightly oxidizing ORP values (MEPM-A13, MEPM-A15D, and/or MEPM-A18). With the exception of arsenic and manganese, no other metals exceeded AGQS in Area C in 2011.

Hydrogeologic conditions suggest that areas around wells MEPM-A13, MEPM-A15D, and/or MEPM-A18 are subject to groundwater flow that is limited compared to flow through other portions of Area A. Of note, residual persulfate and extreme pH and ORP values have persisted longer than at other performance monitoring wells within Area A (see Appendix E). The vertical hydrogeologic positioning of well MEPM-A15D is also likely to contribute to the geochemical and analytical results found in this well. Well MEPM-A15D was constructed in a bedrock depression approximately 10 to 12 feet lower than all other performance monitoring wells in Area A (see Area A as-built map in Appendix A). With the observed bedrock depression and a slight downward gradient (difference in head of 0.54 ft from groundwater elevations measured at MEPM-A15S and MEPM-15D), it is likely that this portion of the aquifer acts as a bowl. Groundwater flow likely crosses horizontally over the top of this depression; therefore advective transport is reduced to the interval where MEPM-15D is screened. As observed at numerous other performance monitoring wells, when groundwater conditions near these wells return to baseline conditions (circum-neutral to slightly basic and slightly reducing), it is anticipated that the concentrations of these metals will continue to decrease to below the AGQS criteria (see Eh/pH plots in Appendix F).

Sulfate

From the ISCO pilot testing, measured baseline sulfate concentrations in Area A, Area B, and Area C were all less than 50 ug/L. After reaction, each molecule of persulfate breaks down to two molecules of sulfate, and sulfate concentrations in groundwater increase after an injection of persulfate. Following ISCO injections, sulfate has been measured at concentrations exceeding 10,000 mg/L in numerous monitoring wells with a maximum concentration of 56,000 mg/L (well MEPM-A13 in January 2009). Concentrations of sulfate have been noted to decrease with time following injections or decrease as a function of reduced persulfate dosages (per the strategy applied in the second and third full-scale applications in Area A and Area B). It should be noted that there is an EPA secondary MCL for sulfate of 250 mg/L based on salty taste in drinking water, and there is a New Hampshire AGQS for sulfate of 500 mg/L.

In Area A, sulfate concentrations exceed the EPA secondary MCL and the AGQS in nearly all performance monitoring wells, with the exception of the westernmost wells (MEPM-A10, MEPM-A11, and ME-AO1S; see Table 3-6). In many wells in Area A, the 2011 sulfate concentration was an order of magnitude lower than maximum concentrations measured in 2009 after a higher persulfate dosage was applied. In general the lowest sulfate concentrations in Area A in 2011 were measured in wells where groundwater ORP has returned to baseline reducing values. These observations suggest that upgradient groundwater flowing into Area A is an important factor in reducing sulfate concentrations from dilution as well as advection. Downgradient of Area A, sulfate concentrations significantly increased in 2010 from 2009 in well ME-11D (1,600 to 11,000 mg/L), but the concentration decreased in 2011 (1,600 mg/L). In the shallow well at this location, ME-11S, sulfate also increased from 2009 to 2010 (110 to 210 mg/L) and then reduced to below the 2009 concentrations in 2011 (92 mg/L).

In Area B, ISCO injections were performed throughout much of the area during all three events, and as a result sulfate concentrations exceed 250 mg/L in performance monitoring wells within the injection area. Concentrations of sulfate were observed to decrease by a factor of 1.5 to 3 from spring 2010 to May 2011 throughout Area B. ISCO injections were only performed in 2008 in the northwest portion of Area B, and in well MEPM-B11 sulfate has returned to baseline concentration. This reduction to baseline, the observed reductions from 2010 to 2011, and the sulfate decreases in Area C (next paragraph) suggest that sulfate will continue to decline to below the EPA secondary MCL in the next two to four years (2013 to 2015). Increases in sulfate have also been measured in monitoring wells located east of Route 125 (exceeding 250 mg/L) with maximum well concentrations between 300 and 14,500 mg/L. Similar to specific conductivity, sulfate concentrations were observed to decrease from maximum concentrations in 2009 or 2010, with the exception of MEOW-1 which increased from 4,300 to 14,500 mg/L from 2010 to 2011. Sulfate concentrations are expected to decrease in the wetland area east of Route 125 with no additional source of sulfate (persulfate injection), due to dilution and dispersion, and to conversion to sulfide in reducing groundwater and sediments.

In Area C where only one persulfate injection was completed in 2008, sulfate has declined to baseline concentrations in five of eight performance monitoring wells. Only two wells within the Area C injection area have sulfate concentrations that exceed 250 mg/L [ME-CO5D (470 ug/L) and MEPM-C13D (520 ug/L)], but the concentrations fell by 2.5 to 3.5 times from 2010 to 2011. In Area C, sulfate has been noted to migrate downgradient of ISCO injections with increased concentrations from 2009 to 2010 to 2011 in wells B4-A (41; 370; 1,040 ug/L), and ME-CO8D (21; 81; 80 ug/L).

3.3.7 Soil Performance Assessment

Contaminant mass sorbed to soil particles can be a source of rebound of contaminant concentrations in groundwater, and this sorbed mass needs to be significantly reduced to ultimately achieve ICLs in groundwater. In April 2010, soil samples were collected after completion of two rounds of ISCO injection at selected locations within Area A, Area B, and Area C. In order to evaluate ISCO performance and assess VOC mass reduction several soil borings were completed in close proximity to boring locations from the 2007 vertical profiling event; sampling locations are shown on a figure in Appendix D. A comparison of VOC concentrations in 2010 soil samples compared to baseline 2007 samples is also provided in Appendix D. In general low VOC concentrations were measured in soil samples from April 2010. With the exception of Area B-13, only one sample interval each in Area A and Area B exceeded 10,000 ug/kg for total VOCs (13,040 ug/kg and 11,985 ug/kg in Area A and Area B, respectively). In the 2008 BODR, the 10,000 ug/kg isopleths was used to determine the horizontal extent of ISCO in Area B, and the 2007 samples had numerous soil samples with total VOC concentrations in excess of 50,000 ug/kg and as high as 168,000 ug/kg. All soil intervals where comparison can be performed between spring 2007 and April 2010 (after the second ISCO injection) showed 65 to greater than 99% reduction in soil concentrations in both Area A and Area B. These results suggest that the first two ISCO rounds were successful in reducing both aqueous and sorbed contaminant mass.

3.4 Lessons Learned

Through the performance of pilot testing and three full scale injections, several important lessons were learned that relate to implementation of ISCO technology.

- **Proper abandonment of direct-push boreholes** – Direct push methods were critical to investigations to delineate the extents of contamination in groundwater and saturated soil. Full-scale injection activities highlighted the importance of properly abandoning all direct-push boreholes with bentonite chips or grout. There were several locations, especially in Area B, where daylighting was observed at some distance away from the active injection locations, and it is assumed that historic direct push boreholes that were not sealed allowed a path of least resistance to pressure injections and allowed for daylighting.

- **Acid Buffering of Site Soils -** Despite applying base-activated persulfate and baseline groundwater pH values being alkaline, following injection groundwater pH dropped to acidic conditions in all areas where persulfate was added to the subsurface. With baseline groundwater pH between 7 and 11 in Areas A and B, the generation of acidic groundwater was not anticipated following injection of base activated persulfate.

  Soil base demand titrations were completed prior to the pilot test injections in 2007, and a total of ten reactor vessels were tested. These results are presented in the In-Situ Chemical Oxidation Treatability Study Report [M&E, 2008A]. After 12 days of persulfate-base-soil reaction time, the pH in five of the ten base demand vessels was circum-neutral (between 6.0 and 8.0) and the pH of two samples (ME-AIP-18 and ME-BIP-22) remained above 8.0. These results suggested that the soil in the pilot test areas would likely have sufficient buffering capacity to maintain an elevated pH with persulfate addition and minimize extreme drops in pH due to sulfuric acid formation. However, the post-reaction pH of two of the ten samples was approximately 3.0, suggesting that a low pH could occur in monitoring wells in some portions of the Site following a persulfate injection. Following pilot test injection of sodium persulfate, groundwater pH did decrease to below 4.5 in monitoring wells where strong indication of persulfate distribution was observed.

  Although the baseline groundwater pH was generally basic (greater than 7), the lowering of groundwater pH following persulfate injections suggests that the native soils are poorly buffered with respect to acidification as shown by results of two base demand bench test samples and the site pilot testing monitoring. Follow-up injections in 2009 and 2010 incorporated larger base (sodium hydroxide, NaOH dosages, as determined by additional bench-scale base titrations performed with site soil by Watermark/ISOTEC, to minimize further acidification of groundwater.

- **Persistence of Persulfate** - During the on-site ISCO pilot test [M&E, 2008A] persistence of the persulfate in the subsurface was observed to be between three and six weeks after injection in the three pilot test areas, which was consistent the typical persistence reported for persulfate by the EPA Engineering Issue on In-Situ Chemical Oxidation [Huling and Pivetz, 2006]. After the full-scale injection performed from July to September 2008, residual persulfate was measured in performance monitoring wells four to seven months following injections. This longer persistence following full-scale injection may have been caused by a combination of factors: the high dosages and large volumes injected, injection through a grid system compared to a single injection well location, and slower oxidation kinetics with consumption of alkaline conditions shortly following completion of injections. The importance of quantifying persulfate persistence is that residual persulfate in the sample vessel can continue to oxidize VOCs between sample collection and laboratory analysis, which will not provide an accurate measurement of concentration of VOCs in groundwater.

- **Direct-push injection materials and persulfate -** Corrosion of the direct push rods occurred during the 2008 ISCO Remedial Action, and replacement rods needed to be obtained which was likely an issue that slowed overall remedial progress. The corrosion was most serious at the threaded joints between rods. The corrosion of the rolled steel rods results from the acidity and strong oxidizing nature of sodium persulfate and the acidification of the groundwater by formation of sulfuric acid upon breakdown of persulfate. The slow injection rates may have exacerbated the problem as the rods remained in the ground for extended periods of time in contact with oxidizing and acidic solutions and groundwater. As a result of thread corrosion, several rods disconnected in the subsurface and could not be retrieved. Additional precautions, not taken by the driller, might have helped reduce corrosion of the threads including applying Teflon grease or use of an inner injection hose within the conventional direct-push injection rods. However, while these precautions would likely reduce corrosion, it will not be eliminated and corrosion of direct push rods and the cost of replacement rods would still be a concern.

- **Injection Methods and Well Construction** – Injection was completed using both injection wells and direct-push injection tooling in 2008. The injection wells installed in 2008 were not developed prior to being used for injection in 2008. Improved injection flow rates were achieved in injection wells compared to direct push injection points in the vicinity and at the same vertical interval especially in Area A (see Table 3-6). For the additional reasons that direct-push refusal was encountered above ISCO target depths and less daylighting was observed when injecting through wells than when using direct-push rods, all injections during the 2009 and 2010 events were performed through PVC semi-permanent injection wells.

  In 2009, injection was performed in Area A and Area B using an injection well network installed at different times and with different methods: 1" PVC wells installed by direct-push rigs in 2008, 2" PVC wells installed by hollow stem auger rigs in 2008, and 1" PVC injection wells installed by hollow stem auger rigs in 2009. Prior to the 2009 ISCO event, a subset of wells in the two areas was developed to determine if any improvement in flows could be achieved. Following the completion of the 2009 ISCO event, flow rates into wells of varying construction and development approaches were compared (Table 3-7). In general, well installation method (auger or direct-push rig) or well diameter did not have a significant effect on observed field flow rates in 2009. With respect to development, the average injection rate was slightly higher in wells that were developed when evaluating all wells in Area A (4.55 vs 4.35 gpm). However, not all wells installed and used for injection in 2008 were developed in 2009, and the average injection rate in these wells was 4.54 gpm. When evaluating only wells installed in 2009, flow rates into wells that were developed were on average greater than those not developed (4.55 vs 4.02 gpm). This evaluation shows that for newly installed injection wells, development did improve injection performance. In addition previous injection in 2008 appears to have the same positive impact as development, and in 2009 the injection performance in these wells was on average equivalent to those wells that were developed in 2009. In general, wells used for injection in 2008 and 2009 had higher injection rates during the first event in 2008, but differences in injection contractor and schedule demands are other factors that make comparison difficult between injection rates from these two events. In Area B, nearly all injection wells were installed in 2008 as well as developed in 2009, so results of comparative analysis are based on small sample sets.

3.5 Site Overview and Future Recommendations

Although concentrations of contaminants in groundwater were reduced in the treatment areas, concentrations of several analytes remain above the ICLs as summarized in Subsection 3.2.

Natural attenuation of chlorinated VOCs has been observed following ISCO injections, especially throughout Area A. Based on the low residual VOC and 1,4-dioxane concentrations measured in May and June 2011, no additional ISCO activities are recommended, but monitoring of the Site in the near-term is suggested to evaluate further reductions in concentrations due to natural attenuation. A key assumption of the 2008 BODR and the BODR addenda was that natural attenuation and long-term monitoring would be a component of the overall remedy through which residual contamination in groundwater would decrease over time under a variety of naturally occurring physical, chemical, and biological processes including biodegradation; dispersion; dilution; sorption; volatilization; and chemical or biological stabilization, transformation or destruction of contaminants [USEPA, 1999]. Furthermore, the EPA Engineering Issue on In-Situ Chemical Oxidation anticipates that “in nearly all cases, natural attenuation will be an integral component to ISCO because it is not economically feasible for ISCO alone to achieve the low cleanup standards specified at many sites for the source area, and/or for the entire plume” [Huling and Pivetz, 2006]. Future monitoring of the areas within and downgradient of the ISCO injection areas will allow evaluation of continuing concentration trends and will demonstrate whether contaminants are attenuating. Potential natural attention processes for residual chlorinated VOCs are discussed in further detail in Subsection 3.5.1. An outline for monitoring residual contaminants and natural attenuation processes is presented as Subsection 3.5.2.

3.5.1 Natural Attenuation Processes

Often times it can be difficult to distinguish which processes are driving natural attenuation; however, evaluation of geochemical parameters and bacteria composition can provide evidence if biodegradation of contaminants is occurring. Potential biogeochemical processes that may be occurring at the Site and further reduce concentrations of VOCs include biodegradation and abiotic degradation on metal surfaces.

Biodegradation by Reductive Dechlorination

Through the process of biologically-mediated reductive dechlorination, chlorinated ethenes (including PCE and TCE) are transformed to innocuous end-products (e.g. ethene, carbon dioxide) through a series of progressive biochemical reactions where chloride atoms are replaced by hydrogen atoms (i.e. PCE → TCE → DCE → vinyl chloride → ethene). Naturally occurring bacteria create hydrogen under reducing conditions that replaces chlorine to sequentially dechlorinate chlorinated ethenes, as discussed above. These biologically-mediated reactions occur favorably in anaerobic (negligible dissolved oxygen), reducing (oxidation reduction potential or ORP is less than -100 mV), circum-neutral (pH between 6.0 and 8.5) groundwater.

In many subareas where ISCO was performed during the first and/or second injection events (only in 2008 and/or 2009), groundwater geochemistry has returned to reducing conditions. Performance monitoring groundwater data from 2010 and 2011 has suggested that biodegradation of chlorinated VOCs via reductive dechlorination is occurring at the Site. Evidence of reductive dechlorination post-ISCO was first observed in groundwater sampling from spring 2010 based on the increases in concentrations of cis-1,2-DCE, and to a lesser extent vinyl chloride, particularly in portions of Area A where ISCO was performed in 2008 but not in 2009. Evaluating all post-ISCO monitoring results (2009 to 2011), concentrations of chlorinated ethenes in several wells in Area A suggest reductive dechlorination processes through the following observations:

- Reductions in chlorinated VOC concentrations (PCE, TCE, 1,2-DCE, and/or vinyl chloride) without additional ISCO;
- Increase in cis-1,2-DCE concentrations, and
- Increase in vinyl chloride concentrations.

cis-1,2-DCE and vinyl chloride were measured before ISCO was implemented in vertical profiling soil and groundwater samples from Spring 2007 and the baseline pilot test groundwater samples in December 2007 (concentrations of cis-1,2-DCE greater than 1,000 ug/L in numerous samples), and this suggests that dechlorinating microbes were already present prior to ISCO and will again multiply if groundwater becomes reducing again as it was before ISCO.

Bar plots presenting temporal trends of molar concentrations of chlorinated ethenes in Area A are included as Appendix G. It should be noted that some reduction in the chlorinated VOC concentrations may also be a result of abiotic degradation detailed in the next section. Evidence of reductive dechlorination was not noted in Area B in 2011. However, nearly all performance monitoring wells in Area B were surrounded by oxidant injection during all three ISCO events (including 2010), and therefore Area B has not had as long a time to return to baseline conditions that would likely favor reductive dechlorination.

Abiotic Degradation

Recent research has been investigating abiotic processes to remediate chlorinated VOCs in groundwater on various iron mineral surfaces, including iron sulfides, magnetite, green rust, and phyllosilicate clays, through a beta elimination reaction [USEPA, 2009]. These beta elimination reactions using iron monosulfide (FeS) are summarized as follows:

$$SO_4^{2-} + 8H \rightarrow S^{2-} + 4H_2O \text{ (sulfur reducing bacteria)}$$

$$FeCl_2 + S^{2-} \rightarrow FeS + 2Cl^- \text{ (iron reducing bacteria)}$$

$$C_2HCl_3 \text{ (TCE)} + FeS \rightarrow C_2H_2 \text{ (acetylene) (abiotic beta elimination)}$$

The beta elimination reaction is similar to the reaction mechanism occurring between zero valent iron and chlorinated VOCs. Some of these pathways and rates of reactions are understood for iron mineral surfaces from simple laboratory experiments, but the current state of science is incomplete for complex systems and field applications. Additionally, it can be difficult to differentiate between abiotic and biotic degradation. However, sites with iron and sulfur minerals present are good candidates for abiotic remediation. At the Ottati and Goss Site, baseline iron concentrations in groundwater were measured to be in excess of 20 mg/L across much of the Site, and a large mass of sulfur, as persulfate, was added to the subsurface. As groundwater conditions are returning to reducing conditions within the ISCO injection areas, there is a high potential for the formation of iron sulfide precipitates and minerals, which can provide reactive surfaces for further degradation of chlorinated VOCs. As these abiotic processes are better understood, future performance monitoring at the Ottati and Goss Site could be modified to better evaluate processes occurring and estimated attenuation rates.

3.5.2 Evaluating Natural Attenuation

To better understand what natural attenuation processes are occurring in groundwater and to better estimate the time to attain all groundwater ICLs, it is recommended to add several additional analytical tests to a subset of monitoring wells for future performance monitoring events.

- ***Dehalococcoides*** (DHC) – These microbes are the only known microbes capable of complete dechlorination of PCE and TCE to ethene. Microorganisms capable of degrading PCE and TCE to cis-1,2-DCE are omnipresent in many subsurface environments, and the high concentrations of cis-1,2-DCE in soil and groundwater detected during the 2007 vertical profiling effort suggest that reductive dechlorination was occurring prior to ISCO treatment. Elevated concentrations of these secondary products (cis-1,2-DCE, vinyl chloride, chloromethane) will likely attenuate/biodegrade over time, especially under anaerobic conditions if DHC microbes are present. However, if members of the DHC group are not present in significant populations, concentrations of cis-1,2-DCE or vinyl chloride may accumulate. For example, in well MEPM-A16 concentrations of cis-1,2-DCE increased between 2009 and 2010 and remained elevated in 2011 suggesting incomplete dechlorination.

- **Total organic carbon (TOC)** – TOC concentrations in groundwater can aid in evaluating the carbon substrate/food source available to subsurface microbes. Additionally, TOC concentrations often increase following ISCO as natural organic material is oxidized and subsequently dissolved.

- **Methane/ethane/ethene** – These concentrations in groundwater can be used to determine if sequential dechlorination is being performed to completion (ethene, ethane).

- **Sulfide** – The presence of sulfide in groundwater indicates that metal sulfide precipitates have the potential to be forming in the subsurface.

- **Iron-reducing bacteria (IRB) and sulfur-reducing bacteria (SRB) -** The presence of these bacteria types will provide evidence that iron will be present in its reduced form (Fe^{2+}) and that sulfate in groundwater is being converted to sulfide so that iron sulfide (FeS) can precipitate.

- Tests for **iron sulfide precipitates** would provide further confirmation that iron sulfide minerals are forming in-situ post-ISCO to allow for abiotic degradation by beta-elimination. Soil samples and/or turbidity particles recovered from low-flow sampling could be tested, and acid volatile sulfide (AVS) is one method for quantifying metal sulfides present.

4.0 References

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Tables

Table 1-1

Interim Cleanup Levels and Maximum Exceedances Prior to ISCO [1]

Ottati & Goss/Kingston Steel Drum Superfund Site

Kingston, New Hampshire

Site/Well ID Date Units	Interim Cleanup Level ug/L	Basis for Cleanup Level	**Maximum Concentration and Location**	
			Maximum Exceedance ug/L	Sampling Location
Volatile Organics				
Benzene	5	MCL	43	GZ-4B
1,2-Dichloroethane	5		Not detected above cleanup level in 2004, 2005, or 2007	
cis-1,2-Dichloroethene	70	MCL	2,900	Area A, 4B
1,4-Dichlorobenzene	75	MCL	100	ME-4A
Ethylbenzene	700	MCL	3,000	Area A, 5F
Hexachlorobutadiene	0.5	AGQS	0.6	MEOW-2
Methyl-t-butyl ether	13	AGQS	63	W-3
Naphthalene	20	AGQS	87	GZ-11A
Styrene	100	MCL	150	GZ-11A
Tetrachloroethene	5	MCL	1,620	Area A, 5F
Tetrahydrofuran	154	AGQS	0.6	MEOW-2
Toluene	1000	MCL	7,760	Area A, 5F
Trichloroethene	5	MCL	1,290	Area A, 5F
Vinyl Chloride	2	MCL	150	GZ-11A
Total Xylenes	10,000	MCL	14,500	Area A, 5F
1,4-Dioxane	3	AGQS	260	MEOW-3
Metals				
Arsenic	10	MCL	160	GZ-4B
Lead	15	AGQS	41.6	GZ-11C
Manganese	300	HA	3410	MEOW-5
Nickel	100	AGQS	Not detected above cleanup level in 2004, 2005, or 2007	
Total PCBs	0.5	MCL	1.2	GZ-11A

Notes:

(1) Maximum exceedances are from groundwater samples collected after soil remedial action was completed in 2002, but before ISCO (i.e., samples from 2004, 2005, and 2007).

MCL = Federal Maximum Contaminant Level

AGQS = New Hampshire Ambient Groundwater Quality Standard

HA = EPA Health Advisory

Table 2-1
Summary of 2008 Injection Activities
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, NH

Injection Area	Treatment Area (sf)	Injection Interval	Injection Points [1]	Direct Push Injection Points	Direct Push Injection Rate[2] (avg - gpm)	Injection Points with Wells	Injection Wells	Injection Well Injection Rate[1] (avg - gpm)	Persulfate Dosage (weight basis)	Persulfate Quantity (lbs)	Volume of Base-Activated Persulfate (gallons)
					Area A						
A-1	30,000	7-19	21	1	n/a	21	21	5.0	24%	210,514	102,344
A-2		6.5-24	20	9	2.5	12	21	7.0			
A-3		15-26	22	21	2.0	1	1	7.6			
A-4		15-26.5	16	14	3.3	2	2	4.8			
A-5		16-22.5	3	3	2.3	0	0	n/a			
A-6		18-27	11	7		4	4	6.3			
A-7		15-26	11	9	1.6	3	3	6.5			
A-8		12-24	4	2	3.7	2	2	5.7			
2008 AREA A TOTAL			108	66		45	54			210,514	102,344
					Area B						
B-1	6,000	11-27	7	6	n/a	1	2	n/a	25%	132,498	61,985
B-2		9-29	14	8	1.4	13	18	1.4			
B-3		15-24	9	9	1.7	2	2	1.4			
B-4		5-27	12	2	2.5	12	19	1.3			
B-5		6-23	8	2	3.2	8	10	1.2			
B-6		5-18	3	1	n/a	5	5	n/a			
2008 AREA B TOTAL			53	28		41	56				
					Area C						
C-1	15,000	13-24	6	2	2	5	9	2.2	22%	51,388	27,232
C-2		16-23	9	5	2.4	4	4	2.2			
C-3		6-23	10	1	n/a	10	19	4.7			
C-4		16-22	5	4	2.5	1	1	3.9			
C-5		14-18	10	7	n/a	3	3	4.5			
2008 AREA C TOTAL			40	19		23	36				
					SITE WIDE TOTALS - 2008						
	51,000		**201**	**113**		**109**	**146**			**394,400**	**191,560**

Notes:
1. At each injection point injection may have been performed via direct-push tooling and/or one or two discrete injection wells. Therefore the sum of "Direct Push Injection Points" and "Injection Points with Wells" is greater than the total number of injection points.
2. A subset of injection nodes was used to estimate range and average of injection rates, and these values do not incorporate every injection location.
n/a - injection values not evaluated

Table 2-2
Summary of 2009 Injection Activities
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, NH

Injection Area	Treatment Area (sf)	Injection Interval	Injection Points	Persulfate Injection Wells	Injection Well Injection Rate (avg - gpm)	Persulfate Dosage (weight basis)	Persulfate Quantity (lbs)	Volume of Base-Activated Persulfate (gallons)	Peroxide Injection Wells	Volume Peroxide (gallons)	Total Injection Volume (gallons)
AREA A											
A-11	17,400	7-19	11	11	4.5	18%	178,200	25,001	--	--	25,001
A-12		7-19	4	4	4.2			8,149	--	--	8,149
A-13		15-26	12	12	4.4			21,542	--	--	21,542
A-14		15-25	22	22	4.4			37,807	9	1625	39,432
A-15		15-26	15	15	4.9			34,401	1	175	34,576
2009 Area A TOTAL			**64**	**64**			**178,200**	**126,900**	**10**	**1,800**	**128,700**
AREA B											
B-11	1,700	5-22	19	19	1.25	18%	26,400	13,000	--	--	13,000
B-12[1]		17-29	5	5	1.2			4,422	--	--	4,422
B-13		8-20	8	2	n/a			519	8	350	869
B[2]			4	4	n/a			1,005	--	--	1,005
2009 Area B TOTAL			**36**	**30**		**18%**	**26,400**	**18,946**	**8**	**350**	**19,296**
AREA C											
2009 Area C TOTAL	No ISCO Injections Performed in Area C in 2009										
SITE WIDE TOTALS - 2009											
	19,100		**100**	**94**			**204,600**	**145,846**	**18**	**2,150**	**147,996**

Notes:
1. Subarea B-12 is the deeper interval located within a portion of the footprint of Subarea B-11.
2. Four wells that were not included in the 2009 BODR were injected into during field operations (D01D, F01D, H05, ME-B01D).
n/a - injection values not evaluated

Table 2-3
Summary of 2010 Injection Activities
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, NH

Injection Area	Treatment Area (sf)	Injection Interval	Injection Points	Peroxide Injection Wells	Peroxide Dosage (weight basis)	Peroxide Injection Rate (avg - gpm)	Volume Peroxide (gallons)	Persulfate Injection Wells	Persulfate Dosage (weight basis)	Persulfate Injection Rate (avg - gpm)	Persulfate Quantity (lbs)	Volume Base-Activated Persulfate (gallons)	MFR Injection Wells	Volume Catalyst (gallons)	Catalyst Injection Rate (avg - gpm)	Volume Peroxide (gallons)	Peroxide Dosage (weight basis)	Peroxide Injection Rate (avg - gpm)	Total Volume (gallons)
AREA A																			
A-11	16,550	7-19	8	--	8%	2.04	--	8	15%	4.12	37,840	7,188	8	1,950	4.16	3,900	8%	2.77	13,038
A-13		15-26	1	--			--	1				231	--	--		--			231
A-14		15-25	16	8			4,400	16				14,819	16	3,475		6,930			29,624
A-15		15-26	10	5			2,950	10				10,013	8	1,945		4,790			19,698
2009 Area A TOTAL			**35**	**13**			**7,350**	**35**			**37,840**	**32,250**	**32**	**7,370**		**15,620**			**62,590**
AREA B																			
B-11	1,850	9-19	16	4	8%	0.54	775	16	15%	1.19	10,560	5,869	12	630	1.02	1,435	8% or 12%	0.61	8,709
B-12[1]		17-29	9	6			1300	9				3,006	9	385		920			5,611
B-13		11-18	3	--				3				125	3	0		30			155
2010 Area B TOTAL			**28**	**10**			**2075**	**28**			**10,560**	**9,000**	**24**	**1,015**		**2,385**			**14,475**
AREA C																			
2010 Area C TOTAL	No ISCO Injections Performed in Area C in 2010																		
SITE WIDE TOTALS - 2010																			
	18,400		**63**	**23**			**9,425**	**63**			**48,400**	**41,250**	**56**	**8,385**		**18,005**			**77,065**

Notes:
1. Subarea B-12 is the deeper interval located within a portion of the footprint of Subarea B-11.
MFR - Modified Fenton's Reagent
n/a - injection values not evaluated

Table 2-4
Summary of ISCO Injection Activities
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, NH

Year	2008	2009	2010	Total
Source Areas Treated	A, B, C	A, B	A, B	
Area Treated (sq ft)	51,000	17,400	18,400	**52,100**
No. of Injection Points	201	100	63	
Oxidant(s) Used	Base-Activated Persulfate	Base-Activated Persulfate, Modified Fenton's Reagent	Peroxide, Base-Activated Persulfate, Modified Fenton's Reagent	
Liquid Volume Injected (gal)	191,560	147,996	77,065	**416,621**
Sodium Persulfate Used (lb)	394,400	204,600	48,400	**647,400**
Hydrogen Peroxide Used (lb)	0	2,150	83,000	**85,150**

Table 3-1
VOCs and 1,4-Dioxane Detections in Excess of ICL and/or AGQS: 2011 Monitoring Events
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

			Area A										
Well ID	ROD ICL	NH AGQS	ME-A01d	ME-A01d	ME-A01s	MEPM-A10	MEPM-A11	MEPM-A12	MEPM-A13	MEPM-A14	MEPM-A15d	MEPM-A15s	MEPM-A16
Sample Date			05/26/11	05/26/11 - FD	05/26/11	05/26/11	05/26/11	05/26/11	05/26/11	05/26/11	05/25/11	05/25/11	05/25/11
Analyte with ICL where ICL was exceeded in one or more samples													
Tetrachloroethene	5	5	140	120	5.1	78	< 5	9.1	3.7	2.9	41	18	17
Trichloroethene	5	5	47	38	< 5	40	< 5	5.5	14	4.5	26	29	35
cis-1,2-Dichloroethene	70	70	150	110	< 5	31	6	110	13	10	190	940	630
Vinyl chloride	2	2	< 5	< 5	< 5	< 2.5	7.9	< 5	< 5	2.9	8.6	79	18
1,2-Dichloroethane	5	5	< 5	< 5	< 5	< 2.5	< 5	< 5	12	< 5	4.6	< 5	< 5
1,4-Dioxane	3	3											0.52
VOCs with no ICL, but NH AGQS was exceeded in one or more samples													
Chloromethane	NA	30	< 5	< 5	< 5	< 2.5	< 5	< 5	700	2.9	200	18	9
Bromomethane	NA	10	< 5	< 5	< 5	< 2.5	< 5	< 5	92	2.5	< 5	< 5	< 5
Carbon disulfide	NA	70	< 5	< 5	< 5	< 2.5	< 5	< 5	11	< 5	< 5	< 5	< 5
Methylene chloride	NA	5	18	18	11	1.8	15	< 5	< 5	10	< 5	< 5	< 5
1,2-Dichloropropane	NA	5	< 5	< 5	< 5	< 2.5	< 5	< 5	< 5	< 5	5.8	< 5	< 5

NOTES:
Concentrations reported in ug/L
Exceeds Interim Cleanup Goal
Exceeds NH AGQS

Table 3-1
VOCs and 1,4-Dioxane Detections in Excess of ICL and/or AGQS: 2011 Monitoring Events
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

			Area A (continued)						**Area B**				
Well ID	ROD ICL	NH AGQS	MEPM-A17	MEPM-A18	GZ-11a	ME-07	ME-11d	ME-11s	ME-B02d	ME-B02s	MEPM-B10s	MEPM-B10s	MEPM-B10d
Sample Date			05/26/11	05/25/11	05/25/11	06/15/11	06/16/11	06/16/11	05/25/11	05/24/11	05/25/11	05/25/11 - FD	05/24/11
Analyte with ICL where ICL was exceeded in one or more samples						south of injection area	downgradient of injection area	downgradient of injection area					
Tetrachloroethene	5	5	< 5	< 5	2.9	< 5	2.3	< 0.5	17	13	6.2	8	< 5
Trichloroethene	5	5	2.8	2.3	2.7	6.7	9.2	0.74	29	57	11	14	4.9
cis-1,2-Dichloroethene	70	70	9.5	5.6	8.2	< 5	22	1.6	31	4.6	13	16	4.1
Vinyl chloride	2	2	< 5	< 5	< 5	< 5	4.1	0.53	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	5	5	2.3	31	< 5	< 5	1.1	< 0.5	< 5	< 5	< 5	< 5	< 5
1,4-Dioxane	3	3			0.82	< 2	0.72	3.8	6.7	4.9	3.2		6.4
VOCs with no ICL, but NH AGQS was exceeded in one or more samples													
Chloromethane	NA	30	180	3000	41	< 5	< 0.5	< 0.5	2.4	< 5	54	76	5.4
Bromomethane	NA	10	7.7	170	3.2	< 5	< 0.5	< 0.5	< 5	< 5	10	17	< 5
Carbon disulfide	NA	70	< 5	140	< 5	< 5	< 0.5	< 0.5	4.9	11	4.5	< 5	< 5
Methylene chloride	NA	5	< 5	< 5	< 5	4.3	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	NA	5	< 5	4.1	< 5	< 5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5

NOTES:
Concentrations reported in ug/L
Exceeds Interim Cleanup Goal
Exceeds NH AGQS

Table 3-1
VOCs and 1,4-Dioxane Detections in Excess of ICL and/or AGQS: 2011 Monitoring Events
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

			Area B (continued)						**Area C**				
Well ID	ROD ICL	NH AGQS	MEOW-3	MEB-S04	ME-04a	MEOW-4	MEOW-6	MEOW-6	B-5a	ME-C05d	MEPM-C11	MEPM-C13d	B-4a
Sample Date			06/14/11	05/24/11	06/14/11	06/14/11	06/14/11	06/14/11 - FD	05/23/11	05/23/11	05/23/11	05/24/11	06/16/11
Analyte with ICL where ICL was exceeded in one or more samples						upgradient of injection area	outside injection area	outside injection area					downgradient of injection area
Tetrachloroethene	5	5	< 5	2.3	10	8.1	< 5	< 5	< 0.5	0.63	< 0.5	0.99	< 0.5
Trichloroethene	5	5	< 5	72	34	16	7.9	8.2	< 0.5	3	2.9	1	0.7
cis-1,2-Dichloroethene	70	70	< 5	33	17	12	53	57	< 0.5	1.5	1.6	0.69	0.64
Vinyl chloride	2	2	< 5	< 5	< 5	< 5	22	23	< 0.5	< 0.5	2	< 0.5	0.4
1,2-Dichloroethane	5	5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	0.37	< 0.5	0.32
1,4-Dioxane	3	3	5.5	24	6.6	1.3	< 2		8.4	5.8	8	3.2	11
VOCs with no ICL, but NH AGQS was exceeded in one or more samples													
Chloromethane	NA	30	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	0.6	< 0.5	0.3	1.2
Bromomethane	NA	10	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	NA	70	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	NA	5	3.1	< 5	4	2.3	2.6	< 5	0.56	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	NA	5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

NOTES:
Concentrations reported in ug/L
Exceeds Interim Cleanup Goal
Exceeds NH AGQS

Table 3-1
VOCs and 1,4-Dioxane Detections in Excess of ICL and/or AGQS: 2011 Monitoring Events
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

			Area C (continued)			**East of Route 125**		
Well ID	ROD ICL	NH AGQS	ME-C06	GZ-09	ME-C04	GZ-04b	MEOW-1	W-20
Sample Date			06/17/11	06/17/11	06/17/11	06/15/11	06/15/11	06/15/11
Analyte with ICL where ICL was exceeded in one or more samples			downgradient of injection area	upgradient of injection area; bedrock well	outside injection area	bedrock well		
Tetrachloroethene	5	5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5
Trichloroethene	5	5	< 0.5	13	3.8	< 5	< 5	< 5
cis-1,2-Dichloroethene	70	70	0.37	5.8	2.9	< 5	< 5	8.2
Vinyl chloride	2	2	0.33	6.8	4.9	< 5	< 5	3.8
1,2-Dichloroethane	5	5	< 0.5	0.46	0.55	< 5	< 5	< 5
1,4-Dioxane	3	3	5.3	14	12	95	8	1.6
VOCs with no ICL, but NH AGQS was exceeded in one or more samples								
Chloromethane	NA	30	< 0.5	< 0.5	< 0.5	2.7	< 5	< 5
Bromomethane	NA	10	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5
Carbon disulfide	NA	70	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5
Methylene chloride	NA	5	< 0.5	< 0.5	< 0.5	3.3	< 5	< 5
1,2-Dichloropropane	NA	5	< 0.5	0.27	< 0.5	< 5	< 5	< 5

NOTES:
Concentrations reported in ug/L
Exceeds Interim Cleanup Goal
Exceeds NH AGQS

Table 3-2
Comparison of Groundwater Concentrations Before and After 2008 ISCO
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

Table 3-2A. Comparison of Vertical Profiling Points and Adjacent PMWs

Concentration (ug/L)	Vertical Profile Point GW-5Z			Adjacent Well PM-A14	Vertical Profile Point GW-3D		Adjacent Well PM-A16	
Interval (ft bgs)	17.5	22.5	26	16-26	17.5	22.5	16-26	
Date	04/07	04/07	04/07	01/09	04/07	04/07	01/09	04/09
PCE	94	1,210	593	65	6.7	5.3	2.2	6
TCE	22	786	664	160	<5	4.9	26	44
cis-1,2-DCE	813	1,520	1,520	61	1,190	922	150	227
Toluene	1,160	1,360	1,760	84	1,480	1,050	180	173
Ethylbenzene	997	1,320	1,570	160	1,360	960	150	200
Total Xylene	3,633	5,997	6,690	630	5,860	4,175	420	366

Table 3-2B. Contaminant Concentrations in PMWs

Concentration (ug/L)	GZ-11A (Area A)			MEOW-3 (Area B)			ME-4A (Area B)	
Date	06/08	01/09	06/09	06/08	01/09	06/09	06/08	06/09
PCE	330	4.3	5.8	<5	<5	<5	48	<5
TCE	170	3.5	9.8	<5	<5	<5	19	<5
cis-1,2-DCE	580	28	33	<5	<5	<5	130	1.4
Toluene	1,600	40	30	2.9	0.94	<5	290	R[1]
Ethylbenzene	1,200	32	69	1.6	4.9	4.2	310	<5
Total Xylene	5,700	128	179	317	16	2.4	1,260	<5/R[2]
1,4-dioxane	7.7	<2	2.4	110	22	25	32	12

Notes:
1. Data was rejected due to limitations identified in the quality control review.
2. o-xylene was not detected at a reporting limit of 5 ug/L. m,p-xylene data were rejected due to limitations identified in the quality control review.

Table 3-3
Evaluation of ISCO Performance on Reduction of Primary VOCs in Performance Monitoring Wells - Area A
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

Well Identification	Sample Date	Injection Performed	PCE	TCE	cis-1,2-DCE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOCs (Mobile Lab)	Vinyl chloride
MEPM-A10	01/13/09		120	68	23	0.8	220	320	1380	2132	0.3
MEPM-A10	02/17/10		8.8	5.9	2.5	0.54	7.9	10	34.3	70	0.81
MEPM-A10	05/26/11		78	40	31	< 2.5	130	130	480	889	< 2.5
ISCO 2 Percent Reduction (2009-2010)		Yes	93%	91%	89%	33%	96%	97%	98%	97%	-170%
ISCO 3 Percent Reduction (2010-2011)		No	-786%	-578%	-1140%	--	--	-1200%	-1299%	-1171%	--
2009-2011 Percent Reduction			35%	41%	-35%	--	41%	59%	65%	58%	--
MEPM-A11	01/13/09		1.4	3.3	260	4.5	53	550	825	1697	53
MEPM-A11	02/17/10		2.8	11	140	16	29	620	339.1	1158	51
MEPM-A11	05/26/11		< 5	< 5	6	2.9	63	170	172	414	7.9
ISCO 2 Percent Reduction (2009-2010)		Yes	-100%	-233%	46%	-256%	45%	-13%	59%	32%	4%
ISCO 3 Percent Reduction (2010-2011)		No	--	>55%	96%	82%	-117%	73%	49%	64%	85%
2009-2011 Percent Reduction			--	--	98%	36%	-19%	69%	79%	76%	85%
MEPM-A12	01/13/09		37	26	23	0.85	15	24	47	173	< 5
MEPM-A12	04/01/10		4.4	22	120	< 5	1	14	3.16	165	36
MEPM-A12	05/26/11		9.1	5.5	110	< 5	3.1	54	44.1	226	< 5
ISCO 2 Percent Reduction (2009-2010)		No	88%	15%	-422%	--	93%	42%	93%	5%	--
ISCO 3 Percent Reduction (2010-2011)		No	-107%	75%	8%	--	-210%	-286%	-1296%	-37%	--
2009-2011 Percent Reduction			75%	79%	-378%	--	79%	-125%	6%	-31%	--
MEPM-A13	4/23/2009		8.6	6.5	58	<5	62	47	194	376	5.2
MEPM-A13	04/01/10		< 130	29	59	< 130	18	170	231	507	< 130
MEPM-A13	05/26/11		3.7	14	13	< 5	14	22	18.9	86	< 5
ISCO 2 Percent Reduction (2009-2010)		No	--	-346%	-2%	--	71%	-262%	-19%	-35%	--
ISCO 3 Percent Reduction (2010-2011)		No	--	52%	78%	--	22%	87%	92%	83%	--
2009-2011 Percent Reduction			57%	-115%	78%	--	77%	53%	90%	77%	--
MEPM-A14	01/13/09		65	160	61	0.98	84	160	630	1161	< 5
MEPM-A14	02/17/10		22	25	290	5.1	13	360	226.4	942	26
MEPM-A14	06/25/10		8.6	27	410	< 20	21	260	37	764	80
MEPM-A14	05/26/11		2.9	4.5	10	< 5	2.4	29	<5	49	2.9
ISCO 2 Percent Reduction (2009-2010)		Yes	61%	-8%	-41%	--	-62%	28%	84%	19%	-208%
ISCO 3 Percent Reduction (2010-2011)		Limited	66%	83%	98%	--	89%	89%	>86%	94%	96%
2009-2011 Percent Reduction			96%	97%	84%	--	97%	82%	>99%	96%	--
MEPM-A15d	01/14/09		24	14	2.1	< 5	29	21	109	199	< 5
MEPM-A15d	06/28/10		< 500	< 500	< 500	< 500	< 500	< 500	<500	<500	< 500
MEPM-A15d	05/25/11		41	26	190	4.4	< 5	< 5	3.9	265	8.6
ISCO 2 Percent Reduction (2009-2010)		No	--	--	--	--	--	--	--	--	--
ISCO 3 Percent Reduction (2010-2011)		No	--	--	--	--	--	--	--	--	--
2009-2011 Percent Reduction			-71%	-86%	-8948%	--	>82%	>76%	96%	-33%	--

Table 3-3
Evaluation of ISCO Performance on Reduction of Primary VOCs in Performance Monitoring Wells - Area A
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

Well Identification	Sample Date	Injection Performed	PCE	TCE	cis-1,2-DCE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOCs (Mobile Lab)	Vinyl chloride
MEPM-A15s	01/14/09		390	110	43	0.73	240	610	2890	4284	< 5
MEPM-A15s	04/01/10		11	19	200	< 31	5.6	12	36	284	< 31
MEPM-A15s	06/28/10		34	120	1200	7.1	15	12	11.3	1399	< 5
MEPM-A15s	05/25/11		18	29	940	< 5	2.4	160	6.5	1156	79
ISCO 2 Percent Reduction (2009-April 2010)		Yes	97%	83%	-365%	--	98%	98%	99%	93%	--
ISCO 3 Percent Reduction (June 2010-2011)		Yes	47%	76%	22%	>29%	84%	-1233%	42%	17%	-1480%
2009-2011 Percent Reduction			95%	74%	-2086%	--	99%	74%	100%	73%	-1480%
MEPM-A16	01/15/09		2.2	26	150	< 5	180	150	420	928	19
MEPM-A16	04/01/10		33	31	630	< 36	23	410	250	1377	< 36
MEPM-A16	05/25/11		17	35	630	< 5	3.3	110	9.5	805	18
ISCO 2 Percent Reduction (2009-2010)		Limited	-1400%	-19%	-320%	--	87%	-173%	40%	-48%	--
ISCO 3 Percent Reduction (2010-2011)		No	48%	-13%	0%	--	86%	73%	96%	42%	--
2009-2011 Percent Reduction			-673%	-35%	-320%	--	98%	27%	98%	13%	5%
MEPM-A17	01/15/09		< 5	1.4	10	< 5	14	11	36.8	73	< 5
MEPM-A17	04/01/10		< 5	11	37	2.1	8.2	73	11.6	143	7.2
MEPM-A17	05/26/11		< 5	2.8	9.5	2.5	8.7	38	70	132	< 5
ISCO 2 Percent Reduction (2009-2010)		Limited	--	-686%	-270%	--	41%	-564%	68%	-95%	--
ISCO 3 Percent Reduction (2010-2011)		No	--	75%	74%	-19%	-6%	48%	-503%	8%	--
2009-2011 Percent Reduction			--	-100%	5%	--	38%	-245%	-90%	-80%	--
MEPM-A18	01/15/09		5.3	75	170	< 5	310	170	580	1310	11
MEPM-A18	02/16/10		< 5	0.71	8.4	0.53	< 5	< 5	<5	10	< 5
MEPM-A18	05/25/11		< 5	2.3	5.6	< 5	2.2	9	31	50	< 5
ISCO 2 Percent Reduction (2009-2010)		Yes	>6%	99%	95%	--	>98%	>97%	>99%	99%	>54%
ISCO 3 Percent Reduction (2010-2011)		Yes	--	-224%	33%	--	--	-80%	--	-420%	--
2009-2011 Percent Reduction			>6%	97%	97%	--	99%	95%	95%	96%	>54%
GZ-11a	06/19/08		330	170	580	3.3	1600	1200	5700	9583.3	< 5
GZ-11a	01/15/09		4.3	3.5	28	< 5	40	32	128	235.8	< 5
GZ-11a	06/23/09		5.8	9.8	33	0.73	30	69	179	327.33	< 5
GZ-11a	06/22/10		< 80	< 80	< 80	< 80	< 80	< 80	<80	<80	< 80
GZ-11a	05/25/11		2.9	2.7	8.2	< 5	< 5	54	15.3	83.1	< 5
ISCO 1 Percent Reduction (2008-2009)		Yes	98%	94%	94%	78%	98%	94%	97%	97%	--
ISCO 2 Percent Reduction (2009-2010)		Yes	--	--	--	--	--	--	--	--	--
ISCO 3 Percent Reduction (2010-2011)		Yes	--	--	--	--	--	--	--	--	--
2008-2011 Percent Reduction			99%	98%	99%	--	>99%	96%	100%	99%	--

Table 3-3
Evaluation of ISCO Performance on Reduction of Primary VOCs in Performance Monitoring Wells - Area B
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

Well Identification	Sample Date	Injection Performed	PCE	TCE	cis-1,2-DCE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOCs (Mobile Lab)	Vinyl chloride
ME-B02d	3/12/2008		100	230	600	11	620	160	670	2391	92
ME-B02d	Apr-09		54	223	271	<20	432	62	124	1166	NA
ME-B02d	02/16/10		38	7.7	25	2.6	14	16	21.6	125	< 25
ME-B02d	05/25/11		17	29	31	< 5	35	64	222	398	< 5
ISCO 1 Percent Reduction (2008-2009)		Yes	46%	3%	55%	--	30%	61%	81%	51%	--
ISCO 2 Percent Reduction (2009-2010)		Yes	30%	97%	91%	--	97%	74%	83%	89%	--
ISCO 3 Percent Reduction (2010-2011)		Yes	55%	-277%	-24%	--	-150%	-300%	-928%	-219%	--
2008-2011 Percent Reduction		Yes	83%	87%	95%	>54%	94%	60%	67%	83%	>94%
2009-2011 Percent Reduction			69%	87%	89%	--	92%	-3%	-79%	66%	--
ME-B02s	01/14/09		4.5	140	42	3.4	59	140	124	512.9	< 5
ME-B02s	02/15/10		47	160	44	3.2	100	150	419	923	4.8
ME-B02s	05/24/11		13	57	4.6	< 5	13	49	94	231	< 5
ISCO 2 Percent Reduction (2009-2010)		Yes	-944%	-14%	-5%	6%	-69%	-7%	-238%	-80%	--
ISCO 3 Percent Reduction (2010-2011)		Yes	72%	64%	90%	--	87%	67%	78%	75%	--
2009-2011 Percent Reduction			-189%	59%	89%	--	78%	65%	24%	55%	--
MEPM-B10d	Apr-09		5.4	7.4	19	<2	14	12	17	75	NA
MEPM-B10d	02/15/10		19	36	3.9	1.2	1.4	1.5	<5	63	< 5
MEPM-B10d	06/25/10		33	110	56	< 25	440	100	464	1203	< 25
MEPM-B10d	05/24/11		< 5	4.9	4.1	< 5	18	5.1	22	54	< 5
ISCO 2 Percent Reduction (2009-April 2010)		Yes	-252%	-386%	79%	--	90%	88%	>70%	16%	--
ISCO 3 Percent Reduction (June 2010-2011)		Yes	>84%	96%	93%	--	96%	95%	95%	96%	--
2009-2011 Percent Reduction			>7%	34%	78%	--	-29%	58%	-29%	28%	--
MEPM-B10s	Apr-09		26	156	290	<20	950	113	396	1931	NA
MEPM-B10s	04/01/10		41	70	99	5.3	33	20	27	295	< 5
MEPM-B10s	05/25/10		7.1	12.5	14.5	<5	17.5	10.35	7	69	<5
ISCO 2 Percent Reduction (2009-April 2010)		Yes	-58%	55%	66%	--	97%	82%	93%	85%	--
ISCO 3 Percent Reduction (June 2010-2011)		Yes	83%	82%	85%	--	47%	48%	74%	77%	--
2009-2011 Percent Reduction			73%	92%	95%	--	98%	91%	98%	96%	--
MEPM-B11	Apr-09		3.1	9	14	<2	14	12	17	69	NA
MEPM-B11	04/01/10		0.92	7.5	11	< 5	8.6	36	41	105	< 5
MEPM-B11	05/25/11		< 5	2.4	19	< 5	8.7	160	90	280	< 5
ISCO 2 Percent Reduction (2009-April 2010)		No	70%	17%	21%	--	39%	-200%	-141%	-52%	--
ISCO 3 Percent Reduction (June 2010-2011)		No	--	68%	-73%	--	-1%	-344%	-119%	-167%	--
2009-2011 Percent Reduction			--	73%	-36%	--	38%	-1233%	-428%	-305%	--
ME-04a	06/16/08		48	19	130	5.7	290	310	17	820	< 5
ME-04a	06/22/09		< 5	< 5	1.4	< 5	R	< 5	17	18	< 5
ME-04a	06/21/10		< 5	< 5	< 5	< 5	< 5	< 5	<5	<5	< 5
ME-04a	06/14/11		10	34	17	3.4	63	31	72	230	< 5
ISCO 1 Percent Reduction (2008-2009)		Yes	>89%	>73%	99%	>12%	--	>98%	0%	98%	--
ISCO 2 Percent Reduction (2009-2010)		Yes	--	--	--	--	--	--	>70%	>72%	--
ISCO 3 Percent Reduction (2010-2011)		Yes	-100%	-580%	-240%	--	-1160%	-520%	-1340%	-4500%	--
2008-2011 Percent Reduction			79%	-79%	87%	40%	78%	90%	-324%	72%	--

Table 3-3
Evaluation of ISCO Performance on Reduction of Primary VOCs in Performance Monitoring Wells - Area B
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

Well Identification	Sample Date	Injection Performed	PCE	TCE	cis-1,2-DCE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOCs (Mobile Lab)	Vinyl chloride
MEB-S04	Apr-09		39	634	1500	<30	2000	980	4100	9253	NA
MEB-S04	02/16/10		37	200	380	9.7	1200	830	2460	5117	< 50
MEB-S04	05/24/11		2.3	72	33	< 5	49	170	1370	1696	< 5
ISCO 2 Percent Reduction (2009-2010)		Yes	5%	68%	75%	--	40%	15%	40%	45%	--
ISCO 3 Percent Reduction (2010-2011)		Yes	94%	64%	91%	>48%	96%	80%	44%	67%	--
2009-2011 Percent Reduction			94%	89%	98%	--	98%	83%	67%	82%	--
MEOW-3	06/16/08		< 5	< 5	< 5	3.7	2.9	1.6	317	325	< 5
MEOW-3	06/22/09		< 5	< 5	< 5	< 5	< 5	4.2	2.4	7	< 5
MEOW-3	06/21/10		< 5	< 5	< 5	< 5	< 5	< 5	<5	<5	< 5
MEOW-3	06/14/11		< 5	< 5	< 5	< 5	< 5	< 5	<5	<5	< 5
ISCO 1 Percent Reduction (2008-2009)		Yes	--	--	--	--	--	-163%	99%	98%	--
ISCO 2 Percent Reduction (2009-2010)		No	--	--	--	--	--	--	--	--	--
ISCO 3 Percent Reduction (2010-2011)		Yes	--	--	--	--	--	--	--	--	--
2008-2011 Percent Reduction			--	--	--	--	--	--	--	--	--
MEOW-4	06/16/08		14	23	21	3.6	83	66	238	449	< 5
MEOW-4	06/23/09		12	22	15	3.2	61	49	154	316	< 5
MEOW-4	06/22/10		< 5	< 5	< 5	< 5	< 5	3.3	8	11	< 5
MEOW-4	06/14/11		8.1	16	12	< 5	42	33	106	217	< 5
ISCO 1 Percent Reduction (2008-2009)		No	14%	4%	29%	11%	27%	26%	35%	30%	--
ISCO 2 Percent Reduction (2009-2010)		No	>58%	>77%	>66%	--	>91%	93%	95%	96%	--
ISCO 3 Percent Reduction (2010-2011)		No	-620%	-220%	-140%	--	-740%	-900%	-1225%	-1821%	--
2008-2011 Percent Reduction			42%	30%	43%	--	49%	50%	55%	52%	--

Notes:
1. Total VOC value on this table is a summation of compounds listed in this table: PCE, TCE, 1,2-cis-DCE, benzene, toluene, ethylbenzene, m/p-xylene, and o-xylene.
2. Percent Reduction values are highlighted for performance monitoring wells in areas where ISCO was performed: green (2008), blue (2009), and orange (2010).

Table 3-4
Summary of Chemical Oxidation Byproducts Detected in Groundwater
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A												
Site ID	NHAGQS	ME-A01s	ME-A01s	ME-A01d	ME-A01d	ME-A01d	ME-A01d	ME-A01d	ME-A01d	ME-A01d	ME-A02d	MEPM-A10	MEPM-A10	MEPM-A10
Sample Date		01/12/09	05/26/11	12/10/2007	1/30/2008	3/12/2008	01/12/09	01/12/09	05/26/11	05/26/11	04/01/10	01/13/09	02/17/10	05/26/11
				Pre-pilot	Pilot Test 6 wks	Pilot Test 12 wks		Field Duplicate		Field Duplicate				
Chloromethane	30	0.47	< 5	ND	**46**	**1500**	**250**	**190**	< 5	< 5	< 10	1.3	0.17	< 2.5
Bromomethane	10	< 5	< 5	ND	ND	**67**	**51**	**51**	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5
Chloroethane	NS	< 5	< 5	ND	ND	20	6	5.8	< 5	< 5	< 10	< 0.5	0.2	< 2.5
Acetone	6000	< 10	< 10	ND	10	190	280	260	< 10	< 10	100	19	3.1	< 25
Carbon Disulfide	70	< 5	< 5	ND	ND	ND	1.3	< 5	< 5	< 5	2.5	0.23	0.26	< 2.5
Methylene Chloride	5	1.1	**11**	ND	ND	ND	2.7	2.4	**18**	**18**	< 10	1.1	< 0.5	1.8
2-Butanone	NS	< 10	< 10	<5	<2	26	22	22	< 10	< 10	12	5.3	< 5	< 25

		Area A													
Site ID	NHAGQS	MEPM-A11	MEPM-A11	MEPM-A11	MEPM-A11	MEPM-A12	MEPM-A12	MEPM-A12	MEPM-A13	MEPM-A13	MEPM-A14	MEPM-A14	MEPM-A14	MEPM-A14	MEPM-A14
Sample Date		01/13/09	02/17/10	02/17/10	05/26/11	01/13/09	04/01/10	05/26/11	04/01/10	05/26/11	01/13/09	02/17/10	06/25/10	06/25/10	05/26/11
				Field Duplicate										Field Duplicate	
Chloromethane	30	6.2	< 25	< 25	< 5	12	< 5	< 5	**2200**	**700**	**1000**	13	< 20	< 20	2.9
Bromomethane	10	0.64	< 25	< 25	< 5	0.72	< 5	< 5	**510**	**92**	**65**	< 17	< 20	< 20	2.5
Chloroethane	NS	100	46	46	< 5	1.1	< 5	< 5	36	21	40	8	< 20	< 20	< 5
Acetone	6000	43	43	35	< 10	18	< 10	< 10	1100	320	780	40	< 40	< 40	< 10
Carbon Disulfide	70	2.9	2.4	2.5	< 5	< 5	< 5	< 5	< 130	11	12	2.3	< 20	< 20	< 5
Methylene Chloride	5	**5.5**	**6.5**	**6.2**	**15**	0.54	< 5	< 5	**39**	< 5	**8.5**	**6.9**	< 20	< 20	**10**
2-Butanone	NS	10	< 50	< 50	< 10	< 10	< 10	< 10	< 250	< 10	55	6.5	< 40	< 40	< 10

		Area A													
Site ID	NHAGQS	MEPM-A15d	MEPM-A15d	MEPM-A15d	MEPM-A15s	MEPM-A15s	MEPM-A15s	MEPM-A15s	MEPM-A15s	MEPM-A16	MEPM-A16	MEPM-A16	MEPM-A17	MEPM-A17	MEPM-A17
Sample Date		01/14/09	06/28/10	05/25/11	01/14/09	02/17/10	04/01/10	06/28/10	05/25/11	01/15/09	04/01/10	05/25/11	01/15/09	04/01/10	05/26/11
Chloromethane	30	**5700**	**9800**	**200**	**1500**	**2500**	**470**	**1000**	18	**110**	< 36	9	**110**	14	**180**
Bromomethane	10	**75**	**2200**	< 5	**10**	**680**	**260**	**120**	< 5	< 5	< 36	< 5	3.1	< 5	7.7
Chloroethane	NS	60	< 500	11	68	72	28	26	< 5	8.8	< 36	< 5	4.3	4.5	< 5
Acetone	6000	2200	5800	640	1300	3100	1700	400	13	200	130	27	140	11	170
Carbon Disulfide	70	14	< 500	< 5	3.6	44	24	16	< 5	2.4	< 36	< 5	< 5	0.95	< 5
Methylene Chloride	5	**59**	< 500	< 5	**47**	< 170	< 31	**10**	< 5	**5.8**	< 36	< 5	1.1	1.3	< 5
2-Butanone	NS	67	< 1000	120	110	240	130	32	< 10	22	< 71	< 10	9.9	< 10	< 10

Concentrations reported in ug/L

Table 3-4
Summary of Chemical Oxidation Byproducts Detected in Groundwater
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A													
Site ID	NHAGQS	MEPM-A18	MEPM-A18	MEPM-A18	MEPM-A18	GZ-11a	GZ-11a	GZ-11a	GZ-11a	GZ-11a	GZ-11b	GZ-11b	GZ-11b	GZ-11b	GZ-11b
Sample Date		01/15/09	02/16/10	06/23/10	05/25/11	06/19/08	01/15/09	06/23/09	06/22/10	05/25/11	06/19/08	06/23/09	06/22/10	06/17/11	06/17/11
															Field Duplicate
Chloromethane	30	**820**	**5200**	**10000**	**3000**	< 5	**2800**	**2400**	**1300**	**41**	< 0.5	**540**	< 0.5	< 0.5	< 0.5
Bromomethane	10	8.9	**350**	< 400	**170**	< 5	**44**	**52**	**290**	3.2	< 0.5	7.7	< 0.5	< 0.5	< 0.5
Chloroethane	NS	10	76	< 400	61	< 5	24	16	< 80	< 5	< 0.5	0.8	< 0.5	< 0.5	< 0.5
Acetone	6000	480	2100	2500	1700	31	2100	1200	800	21	< 5	120	< 5	< 5	< 5
Carbon Disulfide	70	40	**110**	< 400	**140**	< 5	24	11	< 80	< 5	< 0.5	0.65	< 0.5	< 0.5	< 0.5
Methylene Chloride	5	**43**	**120**	< 400	< 5	1.3	**20**	< 5	< 80	< 5	0.11	**7.4**	< 0.5	< 0.5	0.3
2-Butanone	NS	20	120	< 800	120	18	62	45	< 160	< 10	< 5	1.6	< 5	< 5	< 5

		Area A											
Site ID	NHAGQS	INJA-I13	INJA-I21	INJA-H15	ME-11d	ME-11d	ME-11d	ME-11d	ME-11d	ME-11s	ME-11s	ME-11s	ME-11s
Sample Date		06/28/10	02/17/10	02/16/10	06/17/08	06/22/09	06/21/10	06/21/10	06/16/11	06/17/08	06/22/09	06/21/10	06/16/11
								Field Duplicate					
Chloromethane	30	< 80	**5100**	**880**	< 8.3	< 0.5	5.2	7.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	10	< 80	**650**	**120**	< 8.3	< 0.5	0.62	0.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	NS	< 80	110	36	2.8	0.74	11	15	0.97	2.1	1.9	< 0.5	< 0.5
Acetone	6000	< 160	3100	1400	< 83	< 5	180	220	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	70	< 80	38	21	< 8.3	< 0.5	1.8	2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene Chloride	5	< 80	< 250	**16**	< 8.3	< 0.5	3.1	4	< 0.5	0.16	< 0.5	< 0.5	< 0.5
2-Butanone	NS	< 160	220	110	< 83	< 5	19	25	< 5	< 5	< 5	< 5	< 5

		Area A			
Site ID	NHAGQS	ME-07	ME-07	ME-07	ME-07
Sample Date		06/18/08	06/25/09	06/24/10	06/15/11
Chloromethane	30	< 0.5	< 5	< 5	< 5
Bromomethane	10	< 0.5	< 5	< 5	< 5
Chloroethane	NS	2.2	< 5	< 5	< 5
Acetone	6000	< 5	< 10	< 10	< 10
Carbon Disulfide	70	< 0.5	< 5	< 5	< 5
Methylene Chloride	5	0.15	< 5	< 5	4.3
2-Butanone	NS	< 5	< 10	< 10	< 10

Table 3-4
Summary of Chemical Oxidation Byproducts Detected in Groundwater
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B												
Site ID		ME-B01d	ME-B02d	ME-B02d	ME-B02s	ME-B02s	ME-B02s	MEPM-B10d	MEPM-B10d	MEPM-B10d	MEPM-B10d	MEPM-B10s	MEPM-B10s	MEPM-B10s
Sample Date	NHAGQS	02/16/10	02/16/10	05/25/11	01/14/09	02/15/10	05/24/11	4/23/2009	02/15/10	06/25/10	05/24/11	04/01/10	05/25/11	05/25/11
														Field Duplicate
Chloromethane	30	**700**	**620**	2.4	**1800**	**100**	< 5	**2300**	**1200**	**490**	5.4	**77**	**54**	**76**
Bromomethane	10	**19**	**55**	< 5	**200**	**15**	< 5	**42**	**190**	< 25	< 5	**18**	**10**	**17**
Chloroethane	NS	14	9.1	< 5	31	4.7	< 5	11	18	< 25	< 5	3	< 5	< 5
Acetone	6000	590	450	76	650	160	31	900	1300	360	27	230	51	60
Carbon Disulfide	70	68	59	4.9	41	30	11	25	18	< 25	< 5	11	4.5	< 5
Methylene Chloride	5	**23**	**32**	< 5	1.2	< 5	< 5	**21**	**14**	< 25	< 5	< 5	< 5	< 5
2-Butanone	NS	39	27	< 10	43	17	< 10	29	170	< 50	< 10	23	< 10	< 10

added

		Area B													
Site ID		MEPM-B11	MEPM-B11	MEPM-B11	MEB-S04	MEB-S04	MEB-T03	ME-04a	ME-04a	ME-04a	ME-04a	ME-04b	ME-04b	ME-04b	ME-04b
Sample Date	NHAGQS	4/23/2009	04/01/10	05/25/11	02/16/10	05/24/11	02/16/10	06/16/08	06/22/09	06/21/10	06/14/11	06/16/08	06/23/09	06/21/10	06/14/11
Chloromethane	30	**45**	< 5	< 5	< 50	< 5	< 5	< 5	**1900**	< 5	< 5	1.2	< 0.5	5.7	10
Bromomethane	10	3.7	< 5	< 5	< 50	< 5	< 5	< 5	**140**	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	NS	1.2	< 5	< 5	11	< 5	< 5	< 5	11	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5
Acetone	6000	22	7.5	< 10	490	28	< 10	120	380	< 10	26	< 5	< 5	6.3	30
Carbon Disulfide	70	2.1	< 5	< 5	8.8	< 5	0.57	< 5	4.5	< 5	< 5	0.56	< 0.5	2.1	12
Methylene Chloride	5	0.8	< 5	< 5	< 50	< 5	< 5	1.3	< 5	< 5	4	0.87	< 0.5	3.2	2.6
2-Butanone	NS	4.3	< 10	< 10	36	< 10	< 10	45	23	< 10	< 10	< 5	< 5	< 5	< 5

		Area B													
Site ID		MEOW-3	MEOW-3	MEOW-3	MEOW-3	MEOW-3	MEOW-4	MEOW-4	MEOW-4	MEOW-4	INJB-I02	INJB-J03d	INJB-J03s	INJB-K04d	INJB-S03
Sample Date	NHAGQS	06/16/08	01/15/09	06/22/09	06/21/10	06/14/11	06/16/08	06/23/09	06/22/10	06/14/11	06/28/10	06/28/10	06/28/10	04/01/10	04/01/10
Chloromethane	30	< 5	< 5	< 5	< 5	< 5	< 5	< 5	**650**	< 5	< 5	5.2	< 5	**1100**	< 5
Bromomethane	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	**26**	< 5	< 5	< 5	< 5	**210**	< 5
Chloroethane	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	28	< 5	< 5	< 5	< 5	< 71	< 5
Acetone	6000	12	8.7	< 10	< 10	< 10	8.1	< 10	360	< 10	< 10	210	< 10	1100	21
Carbon Disulfide	70	< 5	< 5	< 5	< 5	< 5	< 5	< 5	30	< 5	< 5	< 5	< 5	20	< 5
Methylene Chloride	5	< 5	0.56	< 5	< 5	3.1	< 5	< 5	**15**	2.3	< 5	< 5	< 5	< 71	< 5
2-Butanone	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10	25	< 10	< 10	24	< 10	61	2.6

Concentrations reported in ug/L

Table 3-4
Summary of Chemical Oxidation Byproducts Detected in Groundwater
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C														
Site ID		MEPM-C10	MEPM-C10	MEPM-C10	MEPM-C11	MEPM-C11	MEPM-C11	MEPM-C12	MEPM-C12	MEPM-C12	MEPM-C13d	MEPM-C13d	MEPM-C13d	MEPM-C13s	MEPM-C13s	MEPM-C13s
Sample Date	NHAGQS	01/13/09	04/07/10	05/23/11	01/13/09	02/16/10	05/23/11	01/13/09	02/15/10	05/24/11	01/15/09	02/16/10	05/24/11	01/15/09	02/15/10	05/23/11
															Field Duplicate	
Chloromethane	30	4.5	< 5	< .5	< .5	< .5	< .5	2.1	< .5	< .5	24	27	0.3	< .5	< .5	< .5
Bromomethane	10	0.18	< 5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	1.1	0.55	< .5	< .5	< .5	< .5
Chloroethane	NS	< .5	< 5	< .5	< .5	< .5	< .5	0.18	< .5	< .5	0.28	< .5	< .5	< .5	< .5	< .5
Acetone	6000	7.7	< 10	< 5	2.8	2.1	< 5	4.7	0.82	< 5	33	23	< 5	5.6	1.2	< 5
Carbon Disulfide	70	0.42	< 5	< .5	1.9	0.2	< .5	3.1	0.24	< .5	8.9	1.2	< .5	< .5	0.18	< .5
Methylene Chloride	5	0.77	< 5	< .5	0.21	< .5	< .5	1.1	< .5	< .5	3.9	2.2	< .5	< .5	< .5	< .5
2-Butanone	NS	1.2	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.1	1.6	< 5	0.92	< 5	< 5

		Area C														
Site ID		B-5a	B-5a	B-5a	B-5a	B-5a	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05s	ME-C05s	ME-C05s	ME-C05s	ME-C05s
Sample Date	NHAGQS	06/17/08	01/13/09	06/29/09	06/25/10	05/23/11	06/19/08	01/15/09	06/30/09	06/25/10	05/23/11	06/19/08	01/15/09	06/30/09	06/25/10	05/24/11
Chloromethane	30	< .5	< .5	< .5	< .5	< .5	0.18	3	0.69	< .5	0.6	< .5	1.3	0.2	< .5	0.7
Bromomethane	10	< .5	< .5	< .5	< .5	< .5	< .5	0.26	0.36	< .5	< .5	< .5	0.16	< .5	< .5	< .5
Chloroethane	NS	< .5	< .5	< .5	< .5	< .5	< .5	0.17	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5
Acetone	6000	< 5	< 5	< 5	< 5	< 5	< 5	9	6.3	< 5	< 5	< 5	8.3	3.6	< 5	< 5
Carbon Disulfide	70	< .5	< .5	< .5	< .5	< .5	< .5	11	2.4	< .5	< .5	< .5	3.6	< .5	< .5	< .5
Methylene Chloride	5	< .5	< .5	< .5	< .5	0.56	0.12	3	0.36	< .5	< .5	< .5	0.56	< .5	< .5	< .5
2-Butanone	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5

		Area C												
Site ID		INJC-H14	B-4a	B-4a	B-4a	B-4a	B-4b	B-4b	B-4b	B-4b	ME-C08d	ME-C08d	ME-C08d	ME-C08d
Sample Date	NHAGQS	04/07/10	06/18/08	06/23/09	06/22/10	06/16/11	06/18/08	06/23/09	06/22/10	06/16/11	06/17/08	06/29/09	06/22/10	06/16/11
Chloromethane	30	< 5	< .5	< .5	< .5	1.2	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5
Bromomethane	10	< 5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5
Chloroethane	NS	< 5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5
Acetone	6000	< 10	< 5	< 5	< 5	< 5	3	< 5	< 5	< 5	< 5	33	< 5	< 5
Carbon Disulfide	70	< 5	0.52	< .5	< .5	< .5	0.13	< .5	< .5	< .5	< .5	< .5	< .5	< .5
Methylene Chloride	5	< 5	0.17	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5	< .5
2-Butanone	NS	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5

Concentrations reported in ug/L

Table 3-5
Groundwater Quality Parameters - Spring 2011
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

Area A	Baseline Range	MEPM-A10	MEPM-A11	MEPM-A12	MEPM-A13	MEPM-A14	MEPM-A15S	MEPM-A15D	MEPM-A16
pH	6.7 to 10.7 (7.1 to 9.8)[1]	7.14	6.94	7.92	4.53	6.63	7.58	12.73	9.69
ORP (mV)	-270 to -110	-151.6	-170.2	-395.2	230.6	-22.6	29.3	170.2	-78.3
Sp. Conductivity (us/cm)	300 to 650	424	914	3029	15480	2391	7392	55435	6927
Dissolved Oxygen (mg/L)	<0.5	0.14	0.12	0.04	0.36	0.13	0.17	29.41 [2]	1.37
Sulfate	(15 to 24)[1]	32	160	1400	1100	920	3900	27000	2800

Area A	Baseline Range	MEPM-A17	MEPM-A18	ME-A01S	ME-A01D	GZ-11A
pH	6.7 to 10.7 (7.1 to 9.8)[1]	6.68	4.05	8.17	8.21	5.22
ORP (mV)	-270 to -110	-109.9	475	93.5	361	74.4
Sp. Conductivity (us/cm)	300 to 650	14373	56445	686	2471	10349
Dissolved Oxygen (mg/L)	<0.5	0.22	3.64	0.2	0.41	1.14
Sulfate	(15 to 24)[1]	920	45000	94	740	6400

Area B	Baseline Range	MEPM-B10S	MEPM-B10D	MEPM-B11	ME-B02S	ME-B02D	MEOW-3	ME-SO4	ME-04A
pH	7.2 to 10.3 (8.2 to 9.9)[1]	6.46	9.3	6.59	5.48	9.68	7.93	6.57	9.43
ORP (mV)	-200 to -100	63.7	-479.9	-46.8	-123.3	-253.3	-191.7	-69	-457.6
Sp. Conductivity (us/cm)	780 to 2,390	4140	9070	572	2650	5868	1196	1018	3918
Dissolved Oxygen (mg/L)	<0.6	0.36	0.04	0.17	0.87	0.51	0.08	0.33	0.15
Sulfate	(1 to 43)[1]	1700	4100	45	1100	2600	21	3900	1500

Area C	Baseline Range	ME-C05S	ME-C05D	MEPM-C10	MEPM-C11	MEPM-C12	MEPM-C13S	MEPM-C13D	B-5A
pH	6.5 to 7.3	5.93	6.01	5.74	6.66	5.07	6.06	5.39	6.86
ORP (mV)	-110 to -80	58.5	-29.9	125	-47.3	66.5	172.1	76.4	-97.3
Sp. Conductivity (us/cm)	180 to 390	198	1106	128	384	496	198	982	202
Dissolved Oxygen (mg/L)	<0.6	0.14	0.46	0.12	0.42	0.6	0.17	0.12	0.3
Sulfate	12 to 40 (27 to 40)[1]	29	470	25	77	190	32	520	19

Notes:
1. Baseline values reported within parentheses are from the pilot test monitoring wells in each Area.
2. Dissolved oxygen reading for well MEPM-A15D is anomalously high compared to site values; however, the YSI used at this well met all end of the day calibration criteria as specified in the QAPP.

Table 3-6
Total (Unfiltered) Metals and Sulfate Exceedances of ICL and/or NH AGQS: 2011 Monitoring Events
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

			Area A										
Site ID	Interim		ME-A01d	ME-A01d	ME-A01s	MEPM-A10	MEPM-A11	MEPM-A12	MEPM-A13	MEPM-A14	MEPM-A15d	MEPM-A15s	MEPM-A16
Sample ID	Cleanup	NHAGQS	ME-A01D-1105	ME-A01D-RS-1105	ME-A01S-1105	MEPM-A10-1105	MEPM-A11-1105	MEPM-A12-1105	MEPM-A13-1105	MEPM-A14-1105	MEPM-A15D-1105	MEPM-A15S-1105	MEPM-A16-1105
Sample Date	Level		05/26/11	05/26/11	05/26/11	05/26/11	05/26/11	05/26/11	05/26/11	05/26/11	05/25/11	05/25/11	05/25/11
				field duplicate									
Metals (unfiltered) with ICL (ug/L)													
Arsenic	10	10	114	116	47.9	55.3	30.9	98.4	44.1	49	5420	29.1	117
Lead	15	15	3.3	3.1	11.9	0.46	1.7	10.8	2.7	1.7	9.1	8.7	4.8
Manganese	300	840	50.7	50.3	82.2	4800	2850	14900	9390	2120	194	1580	732
Nickel	100	100	45.9	46.8	21.3	5	41.6	9.8	997	110	156	284	325
Metals (unfiltered) with AGQS but no ICL (ug/L)													
Antimony	NA	6	< 2	< 2	0.81	< 2	< 2	1.1	< 2	< 2	3.9	< 2	< 2
Barium	NA	2000	12.2	11.6	13.4	24	35.7	16.7	8.2	7.9	< 10	14.1	4.8
Beryllium	NA	4	< 1	< 1	< 1	< 1	< 1	< 1	26.2	< 1	< 1	< 1	< 1
Cadmium	NA	5	< 1	< 1	1.7	< 1	< 1	3.9	6.7	< 1	< 1	4.6	< 1
Chromium	NA	100	0.92	0.8	1.7	< 2	1.4	2.3	25.1	< 2	822	9	10
Copper	NA	1300	< 25	< 25	< 25	< 25	< 25	< 25	220	< 25	8.3	29.1	9.7
Mercury	NA	2	0.21	0.22	0.22	0.18	0.18	0.41	0.24	0.22	0.81	0.24	0.2
Potassium	NA	35000	4870	4750	6830	4320	3130	5490	7840	3640	61000	13000	10400
Selenium	NA	50	< 5	< 5	< 5	2.4	< 5	< 5	3.6	< 5	80.6	12.3	24.8
Thallium	NA	2	< 1	< 1	< 1	< 1	< 1	< 1	0.91	< 1	< 1	< 1	< 1
(mg/L)													
Sulfate	NA	500	740	750	94	32	160	1400	1100	920	27000	3900	2800

NOTES:
Exceeds Interim Cleanup Level
Exceeds NH AGQS

Table 3-6
Total (Unfiltered) Metals and Sulfate Exceedances of ICL and/or NH AGQS: 2011 Monitoring Events
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

			Area A (continued)								Area B		
Site ID	Interim		MEPM-A17	MEPM-A18	GZ-11a	GZ-11b	GZ-11b	ME-07	ME-11d	ME-11s	MEB-S04	ME-04a	ME-04b
Sample ID	Cleanup	NHAGQS	MEPM-A17-1105	MEPM-A18-1105	GZ-11A-1105	GZ-11B-1106	GZ-11B-RS-1106	ME-07-1106	ME-11D-1106	ME-11S-1106	MEB-S04-1105	ME-04A-1106	ME-04B-1106
Sample Date	Level		05/26/11	05/25/11	05/25/11	06/17/11	06/17/11	06/15/11	06/16/11	06/16/11	05/24/11	06/14/11	06/14/11
							field duplicate						
						bedrock well	bedrock well	south of injection area	downgradient of injection area	downgradient of injection area			bedrock well
Metals (unfiltered) with ICL (ug/L)													
Arsenic	10	10	91.8	22.9	30.3	7	8.3	7	112	82.2	32	300	3.4
Lead	15	15	0.84	1.6	< 1	8.3	30.2	< 1	< 1	< 1	0.47	5.3	< 2
Manganese	300	840	24600	10300	40000	75.6	77.4	1650	11600	5440	14700	1730	5670
Nickel	100	100	120	2250	317	0.91	0.88	3.8	65.7	11.3	267	74.5	233
Metals (unfiltered) with AGQS but no ICL (ug/L)													
Antimony	NA	6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2.2	< 4
Barium	NA	2000	14.2	4.5	15	18.9	20.5	40.3	23.6	116	33.3	9.5	150
Beryllium	NA	4	< 1	54.8	2.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	6
Cadmium	NA	5	< 1	6.8	10	< 1	0.94	1.6	< 1	< 1	< 1	< 1	< 2
Chromium	NA	100	< 2	124	4.5	1.4	2.8	1.2	1.4	1.2	4.2	8.1	3
Copper	NA	1300	< 25	606	< 25	< 25	19.3	< 25	< 25	< 25	< 25	16.5	< 25
Mercury	NA	2	0.26	0.26	0.35	< 0.2	< 0.2	0.15	< 0.2	0.12	0.17	0.61	< 0.2
Potassium	NA	35000	18800	40300	15500	3940	3890	2980	7500	6150	22900	9950	8930
Selenium	NA	50	5.7	18.4	7.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Thallium	NA	2	< 1	1.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
(mg/L)													
Sulfate	NA	500	920	45000	6400	70	19	12	1600	92	3900	1500	1500

NOTES:
Exceeds Interim Cleanup Level
Exceeds NH AGQS

Table 3-6
Total (Unfiltered) Metals and Sulfate Exceedances of ICL and/or NH AGQS: 2011 Monitoring Events
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

			Area B (continued)								Area C			
Site ID	Interim		ME-B02d	ME-B02s	MEOW-3	MEPM-B10d	MEPM-B10s	MEPM-B11	MEOW-4	MEOW-6	B-5a	ME-C05d	ME-C05s	MEPM-C10
Sample ID	Cleanup	NHAGQS	ME-B02D-1105	ME-B02S-1105	MEOW-3-1106	MEPM-B10D-1105	MEPM-B10S-1105	MEPM-B11-1105	MEOW-4-1106	MEOW-6-1106	B-5A-1105	ME-C05D-1105	ME-C05S-1105	MEPM-C10-1105
Sample Date	Level		05/25/11	05/24/11	06/14/11	05/24/11	05/25/11	05/25/11	06/14/11	06/14/11	05/23/11	05/23/11	05/24/11	05/23/11
									upgradient of injection area	outside injection area				
Metals (unfiltered) with ICL (ug/L)														
Arsenic	10	10	108	58.7	28.3	1220	69.1	21.1	41	98.6	11.2	65.4	6.9	1.7
Lead	15	15	2.3	40.4	137	7.6	3.5	< 1	4.4	< 2	< 1	0.49	0.62	< 1
Manganese	300	840	2630	3340	489	6420	4810	1300	321	14100	542	2790	9980	3270
Nickel	100	100	168	185	18.8	732	96.4	4.9	7.9	481	0.54	4.5	7.6	9.7
Metals (unfiltered) with AGQS but no ICL (ug/L)														
Antimony	NA	6	1	< 2	< 2	1.5	0.87	< 2	< 2	< 4	< 2	< 2	< 2	< 2
Barium	NA	2000	7.3	8	154	11.7	9.2	32.3	45	28.2	10	16.6	22.8	23.3
Beryllium	NA	4	< 1	3.3	0.88	2.1	< 1	< 1	< 1	< 2	< 1	0.43	< 1	< 1
Cadmium	NA	5	< 1	0.92	0.8	< 1	< 1	< 1	< 1	< 2	< 1	< 1	0.43	< 1
Chromium	NA	100	10.7	11.7	19.4	13.5	12.2	< 2	3.1	< 4	< 2	1.6	< 2	1.9
Copper	NA	1300	< 25	< 25	23.6	< 25	24.1	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Mercury	NA	2	0.2	0.18	< 0.2	0.34	0.22	0.18	< 0.2	0.086	0.14	0.14	0.14	0.14
Potassium	NA	35000	14600	13300	5900	17400	6290	7800	4670	21100	1810	6270	2260	< 5000
Selenium	NA	50	4.9	< 5	< 5	7.2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Thallium	NA	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 1	< 1
(mg/L)														
Sulfate	NA	500	2600	1100	21	4100	1700	45	2.3	5900	19	470	29	25

NOTES:
Exceeds Interim Cleanup Level
Exceeds NH AGQS

Table 3-6
Total (Unfiltered) Metals and Sulfate Exceedances of ICL and/or NH AGQS: 2011 Monitoring Events
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

			Area C (continued)										
Site ID	Interim		MEPM-C11	MEPM-C12	MEPM-C12	MEPM-C13d	MEPM-C13s	B-4a	B-4b	ME-C06	ME-C08d	ME-C08s	MW-B1
Sample ID	Cleanup	NHAGQS	MEPM-C11-1105	MEPM-C12-1105	MEPM-C12-RS-1105	MEPM-C13D-1105	MEPM-C13S-1105	B-4A-1106	B-4B-1106	ME-C06-1106	ME-C08D-1106	ME-C08S-1106	MW-B1-1106
Sample Date	Level		05/23/11	05/24/11	05/24/11	05/24/11	05/23/11	06/16/11	06/16/11	06/17/11	06/16/11	06/16/11	06/15/11
					field duplicate								
								downgradient of injection area	downgradient of injection area	downgradient of injection area	downgradient of injection area	downgradient of injection area	upgradient of injection area
Metals (unfiltered) with ICL (ug/L)													
Arsenic	10	10	65.1	18.5	19.3	11.7	0.51	19.7	112	49	74.1	77.4	6.1
Lead	15	15	1.8	0.48	0.56	0.66	2	< 1	< 1	< 1	< 1	< 1	< 1
Manganese	300	840	1350	4320	4090	7400	8850	3050	5130	2460	7290	4920	3700
Nickel	100	100	1.5	7.2	6.7	81.7	2.9	1.3	2.7	4.7	4.7	2.9	3
Metals (unfiltered) with AGQS but no ICL (ug/L)													
Antimony	NA	6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Barium	NA	2000	21.9	< 10	< 10	19.2	12.9	61.6	32.7	40	23.3	28.3	9.5
Beryllium	NA	4	< 1	< 1	< 1	0.61	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cadmium	NA	5	< 1	< 1	< 1	< 1	0.46	< 1	< 1	< 1	< 1	< 1	< 1
Chromium	NA	100	0.96	1.6	2	< 2	< 2	< 2	< 2	0.8	< 2	< 2	< 2
Copper	NA	1300	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Mercury	NA	2	0.15	0.13	0.16	0.21	0.15	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.13
Potassium	NA	35000	2820	4520	4410	4220	< 5000	8270	2060	4240	2590	2210	3390
Selenium	NA	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Thallium	NA	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
(mg/L)													
Sulfate	NA	500	77	190	190	520	32	1040	25	26	80	37	23

NOTES:
Exceeds Interim Cleanup Level
Exceeds NH AGQS

Table 3-6
Total (Unfiltered) Metals and Sulfate Exceedances of ICL and/or NH AGQS: 2011 Monitoring Events
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

			Area C (continued)			**East of Route 125**					
Site ID	Interim		GZ-09	ME-C02	ME-C04	GZ-04a	GZ-04a	GZ-04b	MEOW-1	MEOW-2	W-20
Sample ID	Cleanup	NHAGQS	GZ-09-1106	ME-C02-1106	ME-C04-1106	GZ-04A-1106	GZ-04A-RS-1106	GZ-04B-1106	MEOW-1-1106	MEOW-2-1106	W-20-1106
Sample Date	Level		06/17/11	06/16/11	06/17/11	06/15/11	06/15/11	06/15/11	06/15/11	06/15/11	06/15/11
							field duplicate				
			upgradient of injection area; bedrock well	upgradient of injection area	outside injection area						
Metals (unfiltered) with ICL (ug/L)											
Arsenic	10	10	8	11.6	15.3	68.4	63.5	21.1	42.6	4.5	178
Lead	15	15	< 1	< 1	< 1	< 2	< 1	< 2	1	0.73	< 1
Manganese	300	840	356	294	714	17800	16200	33000	42400	3240	4110
Nickel	100	100	0.43	0.43	0.63	77.6	73.5	177	27.1	8.5	26.2
Metals (unfiltered) with AGQS but no ICL (ug/L)											
Antimony	NA	6	< 2	< 2	< 2	< 4	< 2	< 4	< 2	< 2	< 2
Barium	NA	2000	12.8	9.1	11.4	26.7	28	57.8	32.5	82.9	64.9
Beryllium	NA	4	< 1	< 1	< 1	2.4	2.4	2.5	< 1	< 1	< 1
Cadmium	NA	5	< 1	< 1	< 1	< 2	< 1	< 2	< 1	< 1	< 1
Chromium	NA	100	0.95	1.2	0.85	< 4	0.9	1.5	2.7	2.2	0.83
Copper	NA	1300	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Mercury	NA	2	< 0.2	< 0.2	< 0.2	0.16	0.15	0.24	0.37	0.13	0.13
Potassium	NA	35000	3020	2720	2640	9760	11700	21000	39300	5820	7500
Selenium	NA	50	< 5	< 5	< 5	< 10	< 5	< 5	< 5	< 5	< 5
Thallium	NA	2	< 1	< 1	< 1	< 2	< 1	< 2	< 1	< 1	< 1
(mg/L)											
Sulfate	NA	500	15	18	16	1700	1600	5200	14500	74	330

NOTES:
Exceeds Interim Cleanup Level
Exceeds NH AGQS

Table 3-7
Comparison of Flow Rates By Injection Method - 2008
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

Sub-Area/ Treatment Zone	Injection Well/Point ID	Injection Type	Well Diameter* (in.)	Top of Treatment Zone** (ft. bgs)	Bottom of Treatment Zone** (ft. bgs)	Treatment Volume (gal.)	Injection Pressure Range (psi)	Injection Flow Range (gpm)	Injection Average Flow Rate (gpm)	Injection Rate per Length Range (gpm/ft)	Injection Rate per Length Average (gpm/ft)
Area A											
A-2	B07D	Well	2-in.	16	24	802.3	15 - 18	6.95 - 9.24	8.2	0.87 - 1.16	1.03
	F07D	Well	2-in.	16	24	809.2	17 - 20	7.31 - 8.41	7.9	0.91 - 1.05	0.99
	D07	Direct Push		14	24	1,728.2	2 - 27	0.52 - 3.22	2.0	0.04 - 0.4	0.22
	F04	Well	1-inch	6.5	19	1,278.6	20 - 25	4.13 - 6.17	5.6	0.33 - 0.49	0.45
	F06	Direct Push	NA	6.5	21	1,450.0	0 - 26	1.8 - 3.73	2.6	0.26 - 0.63	0.39
	F08	Direct Push	NA	6.5	17	1,050.4	2 - 29	1.51 - 3.42	2.6	0.25 - 0.49	0.35
	H08S	Well	1-inch	6.6	14.6	806.00	13 - 16	0.7 - 9.59	6.3	0.09 - 1.2	0.79
	H07	Direct Push	NA	6.5	19	1,264.9	0 - 7	1.71 - 3.37	2.8	0.27 - 0.48	0.36
A-3	D10	Well	1-inch	15	25	1,007.6	0 - 22	7.37 - 7.89	7.6	0.74 - 0.79	0.76
	D09	Direct Push	NA	15	25	1,000.0	0 - 17	1.17 - 2.64	1.8	0.13 - 0.48	0.27
	F10	Direct Push	NA	15	24	900.4	9 - 20	1.15 - 4.47	2.2	0.13 - 0.74	0.36
A-4	H14	Well	1-inch	14	24	1,000.0	0 - 0	1.7 - 6.76	4.4	0.17 - 0.68	0.44
	I-14	Direct Push	NA	16	24	728.0	0 - 30	0.5 - 5.39	2.6	0.06 - 0.9	0.46
	H15	Well	1-inch	15	25	1,000.0	25 - 29	4.06 - 6.08	5.2	0.41 - 0.61	0.52
	H16	Direct Push	NA	16	24	800.5	10 - 27	2.63 - 6.23	4.1	0.38 - 1.42	0.77
A-6	F21	Well	1-inch	18	25	748.0	0 - 0	2.95 - 7.05	5.4	0.42 - 1.01	0.77
	D22	Direct Push	NA	18	25	704.7	5 - 20	2.07 - 3.53	2.7	0.31 - 0.71	0.47
	H19	Well	1-inch	18	25	700.0	0 - 0	4.67 - 10.33	7.4	0.67 - 1.48	1.05
	H21	Direct Push	NA	18	25	705.2	0 - 22	0.3 - 2.82	1.9	0.15 - 0.87	0.50
A-7	I21	Well	1-inch	15	23	803.8	16.5 - 21	2.94 - 6.61	5.5	0.37 - 0.83	0.69
	J20	Direct Push	NA	15	22	701.2	2 - 22.5	0.56 - 2.89	1.7	0.28 - 0.98	0.45
	J22	Well	1-inch	15	22	704.2	16 - 17.5	6.85 - 8.84	7.5	0.98 - 1.26	1.08
	J24	Direct Push	NA	15	22	702.1	0 - 5	0.82 - 2	1.5	0.12 - 0.5	0.26
A-8	K22	Well	1-inch	12	23	1,102.0	22.5 - 29	2.9 - 7.61	5.7	0.26 - 0.69	0.52
	K23	Direct Push	NA	12	24	1,200.6	2 - 15	1.6 - 5.97	3.7	0.36 - 0.85	0.67

Table 3-7
Comparison of Flow Rates By Injection Method - 2008
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

Sub-Area/ Treatment Zone	Injection Well/Point ID	Injection Type	Well Diameter* (in.)	Top of Treatment Zone** (ft. bgs)	Bottom of Treatment Zone** (ft. bgs)	Treatment Volume (gal.)	Injection Pressure Range (psi)	Injection Flow Range (gpm)	Injection Average Flow Rate (gpm)	Injection Rate per Length Range (gpm/ft)	Injection Rate per Length Average (gpm/ft)
Area B											
B-1	D01S	Well	1-inch	10.7	20.7	1,250.5	0 - 9	0.42 - 2.72	1.4	0.04 - 0.27	0.14
	C02	Direct Push	NA	11	22	973.4	2.5 - 25	1.77 - 3.05	2.3	0.21 - 0.61	0.34
B-2	E02D	Well	1-inch	18.8	28.8	1,251.1	0 - 8	0.64 - 2.18	1.4	0.06 - 0.22	0.14
	E04 DP	Direct Push	NA	20	28	179.9	19 - 21.5	0.06 - 1.96	1.1	0.01 - 0.24	0.14
	G04D	Well	2-in.	19	29	1,263.1	1 - 5	0.81 - 1.86	1.4	0.08 - 0.19	0.14
	H03 DP	Direct Push	-	17	26	601.2	4 - 16	0.89 - 2.49	1.7	0.3 - 0.41	0.36
B-3	F01 Well	Well	1-inch	16	23.5	1,236.3	0 - 12	1.19 - 1.48	1.3	0.16 - 0.2	0.18
	F01 DP	Direct Push		16	24		7.5 - 20.5	1 - 1.41	1.2	0.18 - 0.33	0.26
	H01D	Well	1-inch	14.5	22	964.0	0 - 2	1.03 - 2.58	1.4	0.14 - 0.34	0.19
	I00	Direct Push	NA	15	21	599.4	11.5 - 19	1.73 - 3.47	2.5	0.43 - 0.8	0.56
	K00	Direct Push	NA	15	18	300.1	11.5 - 27	0.84 - 1.59	1.3	0.28 - 0.53	0.44
B-4	M02 Well	Well	1-inch	8.5	18.5	1,247.6	1 - 5	1.05 - 1.92	1.3	0.1 - 0.19	0.13
	M02 DP	Direct Push	NA	10	14	251.0	11 - 11.5	1.12 - 1.54	1.3	0.56 - 0.77	0.66
	O00 Well	Well	1-inch	7	17	1,357.4	0 - 4.5	0.61 - 2.76	1.3	0.06 - 0.28	0.13
	O00 DP	Direct Push	NA	10	18	143.3	10 - 14.5	1.13 - 2	1.6	0.14 - 0.25	0.20
B-5	Q02D	Well	1-inch	16	20	450.1	4.5 - 15	0.72 - 1.55	1.2	0.18 - 0.39	0.31
	P03 DP	Direct Push	NA	16	22	194.8	13 - 13	3.25 - 3.25	3.2	0.54 - 0.54	0.54

Table 3-7
Comparison of Flow Rates By Injection Method - 2008
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

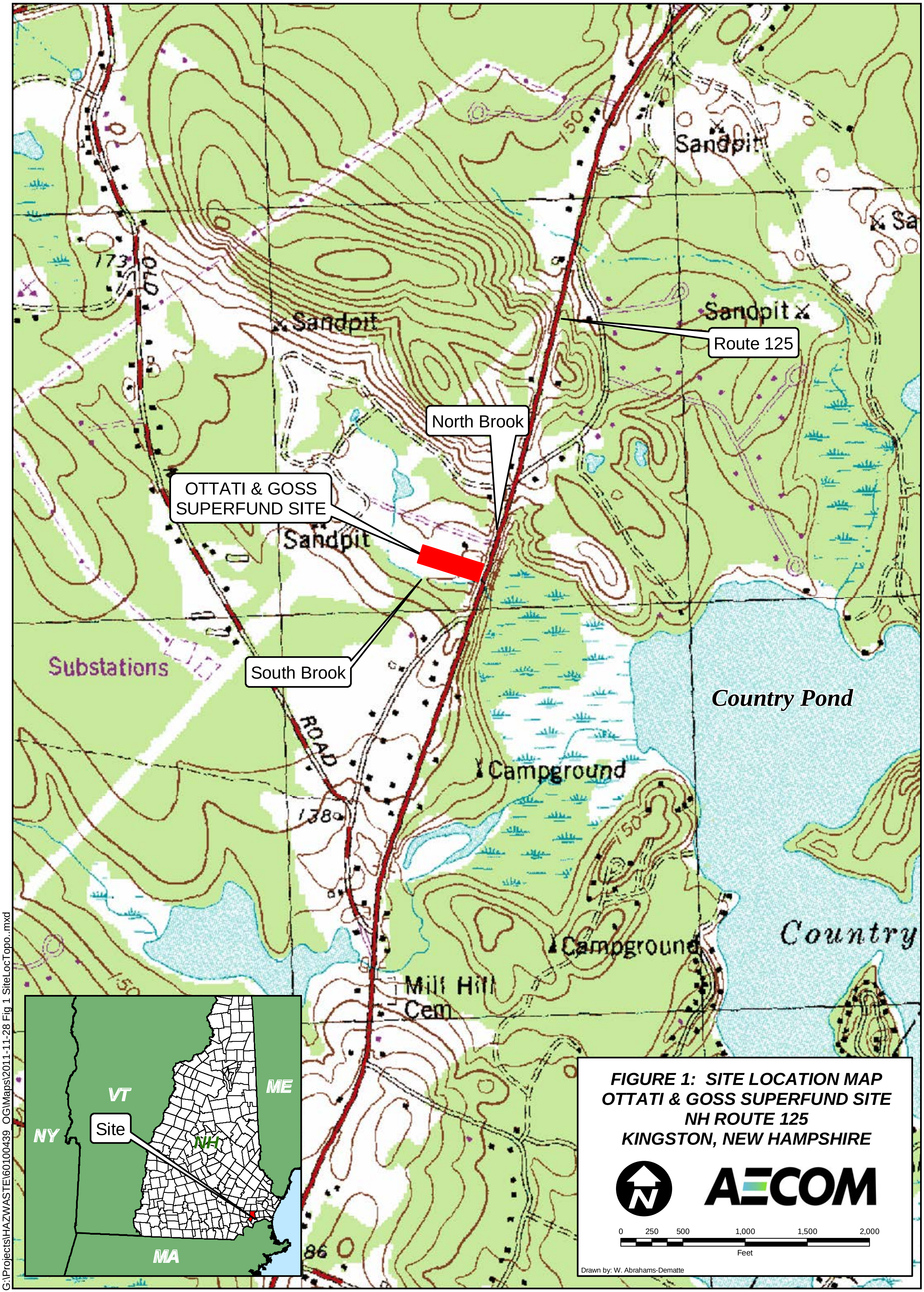
Sub-Area/ Treatment Zone	Injection Well/Point ID	Injection Type	Well Diameter* (in.)	Top of Treatment Zone** (ft. bgs)	Bottom of Treatment Zone** (ft. bgs)	Treatment Volume (gal.)	Injection Pressure Range (psi)	Injection Flow Range (gpm)	Injection Average Flow Rate (gpm)	Injection Rate per Length Range (gpm/ft)	Injection Rate per Length Average (gpm/ft)
Area C											
C-1	H12S	Well	1-inch	13	18	425.0	0 - 0	1.5 - 2.22	1.9	0.3 - 0.44	0.39
	H12D	Well	1-inch	19	24	425.0	0 - 2	1.34 - 3.91	2.6	0.27 - 0.78	0.51
	I11	Direct Push	-	14	24	796.0	0 - 30	1.42 - 4.07	2.0	0.15 - 0.68	0.27
	J13S	Well	1-inch	13	18	425.0	0 - 0	0.23 - 3.13	2.2	0.05 - 0.63	0.43
	J13D	Well	1-inch	19	24	425.0	0 - 0	1.56 - 2.94	2.3	0.31 - 0.59	0.46
C-2	C00	Well	1-inch	14.5	19.5	425.0	0 - 7	1 - 3.2	2.1	0.2 - 0.64	0.42
	C02	Well	1-inch	17	22	430.0	0 - 7	1.08 - 4.17	2.2	0.22 - 0.83	0.44
	D01	Direct Push	NA	20	23	255.0	17 - 24	1.67 - 2.94	2.1	0.56 - 0.98	0.85
	E02	Direct Push	NA	20	23	260.0	7 - 13	2 - 3.04	2.7	0.95 - 1.46	1.15
C-3	B06S	Well	1-inch	6	16	860.0	0 - 2	0.4 - 7	3.8	0.04 - 0.7	0.38
	B06D	Well	1-inch	18	23	425.0	0 - 7	1.8 - 5.4	3.3	0.36 - 1.08	0.66
	C08S	Well	1-inch	6	16	853.4	1 - 1	6.56 - 7.14	6.8	0.66 - 0.71	0.68
	D08D	Well	1-inch	18	23	425.0	0 - 5	0.8 - 7.58	4.8	0.16 - 1.52	0.96
C-4	D00	Direct Push	NA	16	23	595.0	14.5 - 18.5	1.52 - 4.71	2.7	0.26 - 1.81	0.71
	E01	Direct Push	NA	16	21	426.0	5 - 18	0.14 - 4.61	2.3	0.03 - 2.3	0.78
	F00	Well	1-inch	15.5	18.5	225.0	0 - 0	3.06 - 5	3.9	1.22 - 2	1.56
C-5	E03	Well	1-inch	14	18	333.3	16 - 17.5	0.21 - 7	3.8	0.05 - 1.75	0.94
	E07	Well	1-inch	14	18	350.0	1.5 - 1.5	4.57 - 6.8	5.4	1.14 - 1.7	1.34

Table 3-8
Comparison of Flow Rates With Installation and Development - 2009
Ottati and Goss/Kingston Steel Drum Superfund Site
Kingston, NH

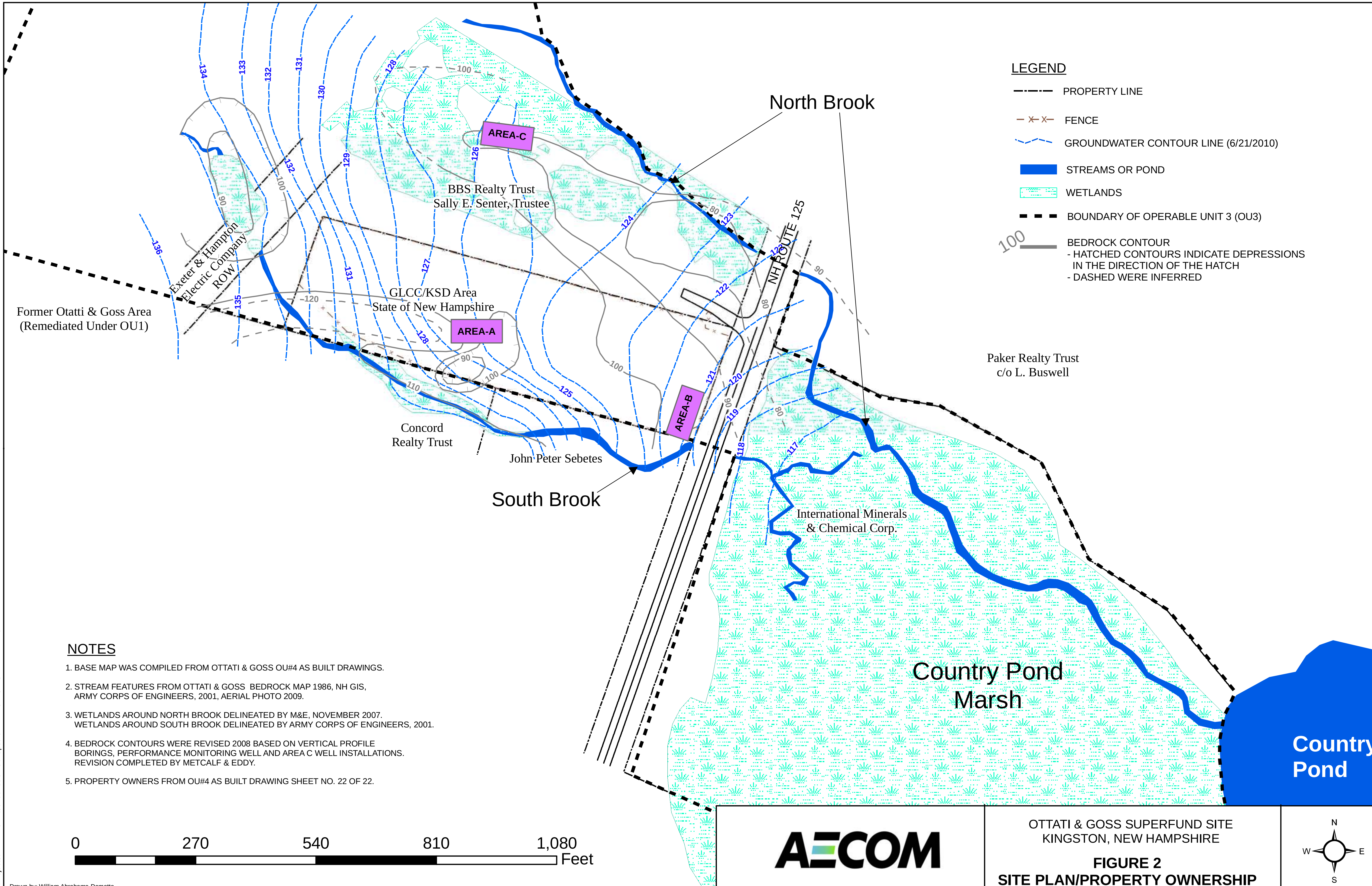
Area A	**No. of Wells**	**Avg. Injection Rate (gpm)**
All Wells	64	4.43
2009 Not Developed Wells	38	4.35
2009 Developed Wells	26	4.55
2009 Installed Wells (1" installed with auger)	40	4.37
2009 Installed Wells - Developed	26	4.55
2009 Installed Wells - Not Developed	14	4.02
2008 Direct Push Installed Wells (1" , not developed in 2009)	21	4.54
2008 Auger Installed Wells (2", not developed in 2009)	3	4.57

Area B (not including Subarea B-13)	**No. of Wells**	**Avg. Injection Rate (gpm)**
All Wells	26	1.26
2009 Not Developed Wells	2	1.35
2009 Developed Wells	24	1.25
2009 Installed Wells (1" installed with auger, developed in 2009)	1	1.00
2008 Direct Push Installed Wells (1")	22	1.28
2008 Auger Installed Wells (2", all developed in 2009)	3	1.23

Figures



G:\Projects\HAZWASTE\60100439_OG\Maps\2011-11-28 Fig 1 SiteLocTopo..mxd



NOTES

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP 1986, NH GIS, ARMY CORPS OF ENGINEERS, 2001, AERIAL PHOTO 2009.
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E, NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS, 2001.
4. BEDROCK CONTOURS WERE REVISED 2008 BASED ON VERTICAL PROFILE BORINGS, PERFORMANCE MONITORING WELL AND AREA C WELL INSTALLATIONS. REVISION COMPLETED BY METCALF & EDDY.
5. PROPERTY OWNERS FROM OU#4 AS BUILT DRAWING SHEET NO. 22 OF 22.

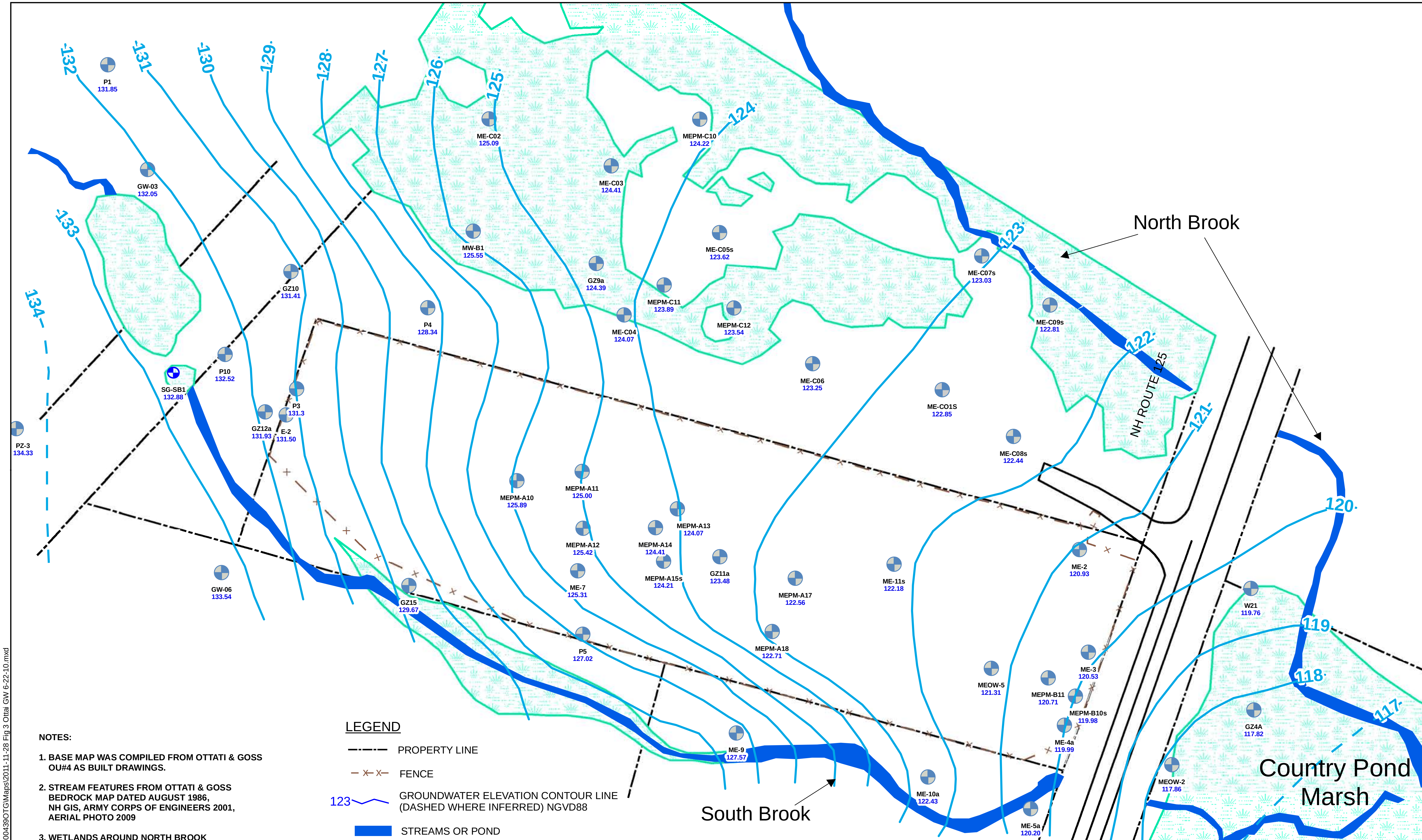
Drawn by: William Abrahams-Dematte

G:\Projects\HAZWASTE\60100439OTG\Maps\2011-11-28 FIG 2 SITEPLAN.mxd

AECOM

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

FIGURE 2
SITE PLAN/PROPERTY OWNERSHIP



NOTES:

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2001, AERIAL PHOTO 2009
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.

LEGEND

PROPERTY LINE
FENCE
123 GROUNDWATER ELEVATION CONTOUR LINE (DASHED WHERE INFERRED) NGVD88
STREAMS OR POND
WETLANDS
APPROXIMATE BOUNDARY OF OPERABLE UNIT 3 (OU3)

AECOM

0 75 150 225 300 Feet

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

FIGURE 3
GROUND WATER CONTOUR MAP
JUNE 21, 2010

N W E S

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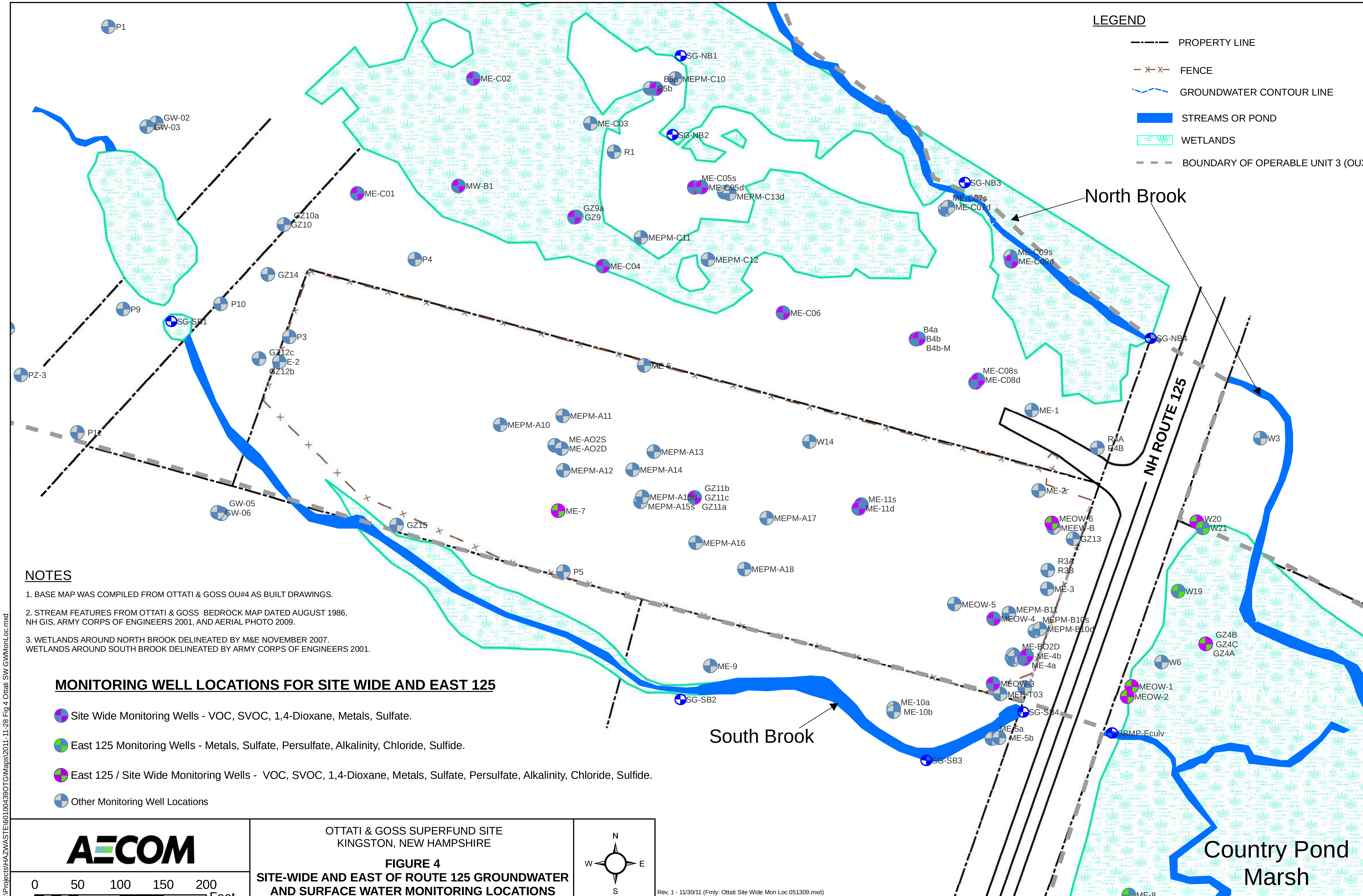

NOTES

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2001, AND AERIAL PHOTO 2009.
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.

MONITORING WELL LOCATIONS FOR SITE WIDE AND EAST 125

- Site Wide Monitoring Wells - VOC, SVOC, 1,4-Dioxane, Metals, Sulfate.
- East 125 Monitoring Wells - Metals, Sulfate, Persulfate, Alkalinity, Chloride, Sulfide.
- East 125 / Site Wide Monitoring Wells - VOC, SVOC, 1,4-Dioxane, Metals, Sulfate, Persulfate, Alkalinity, Chloride, Sulfide.
- Other Monitoring Well Locations

AECOM

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

FIGURE 4
SITE-WIDE AND EAST OF ROUTE 125 GROUNDWATER AND SURFACE WATER MONITORING LOCATIONS

Rev, 1 - 11/30/11 (Fmly: Ottati Site Wide Mon Loc 051309.mxd)
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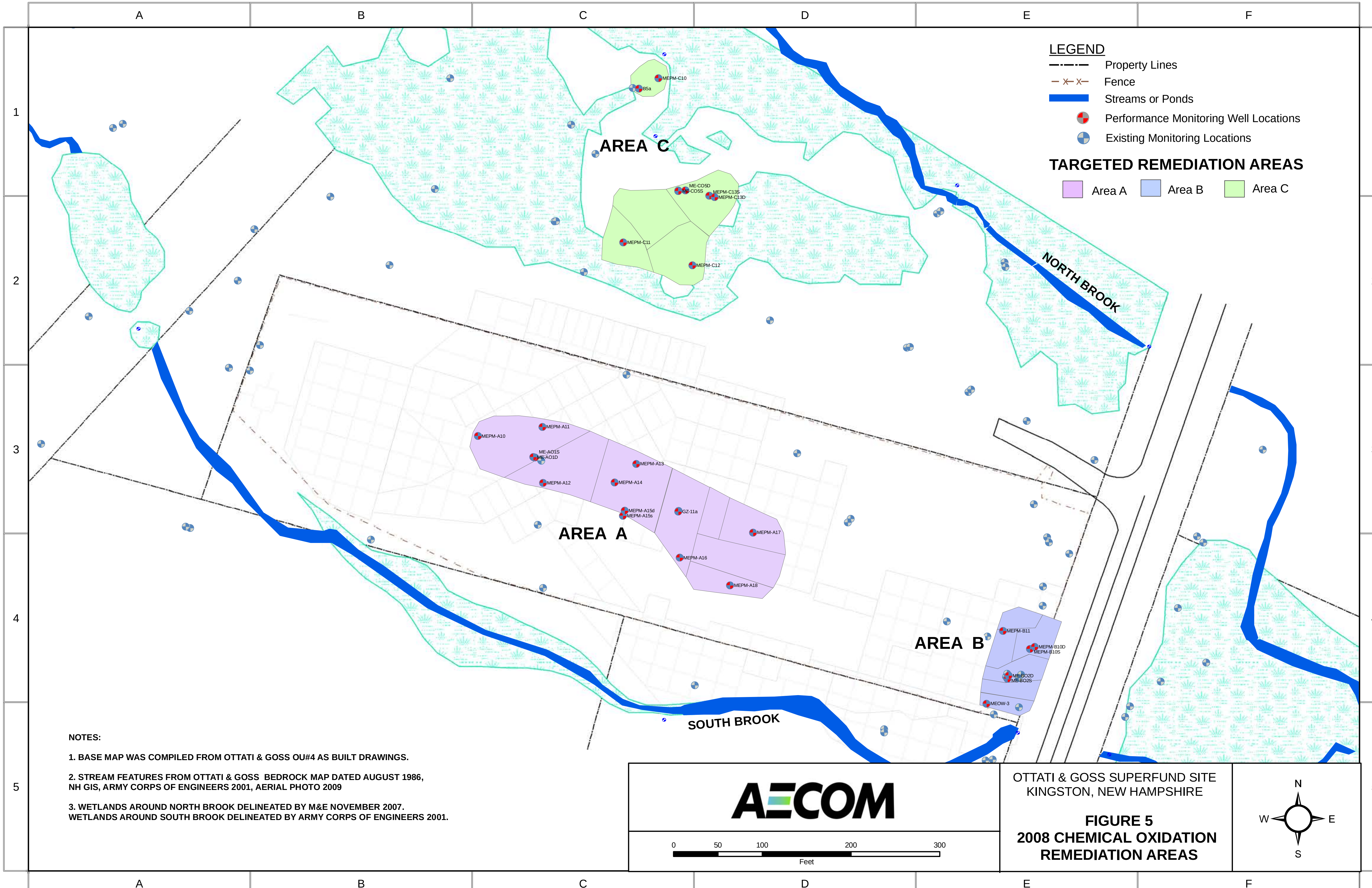
G:\Projects\HAZWASTE\60100439OTG\Maps\2011-11-28 Fig 4 Ottati SW GWMonLoc.mxd



NOTES:

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.

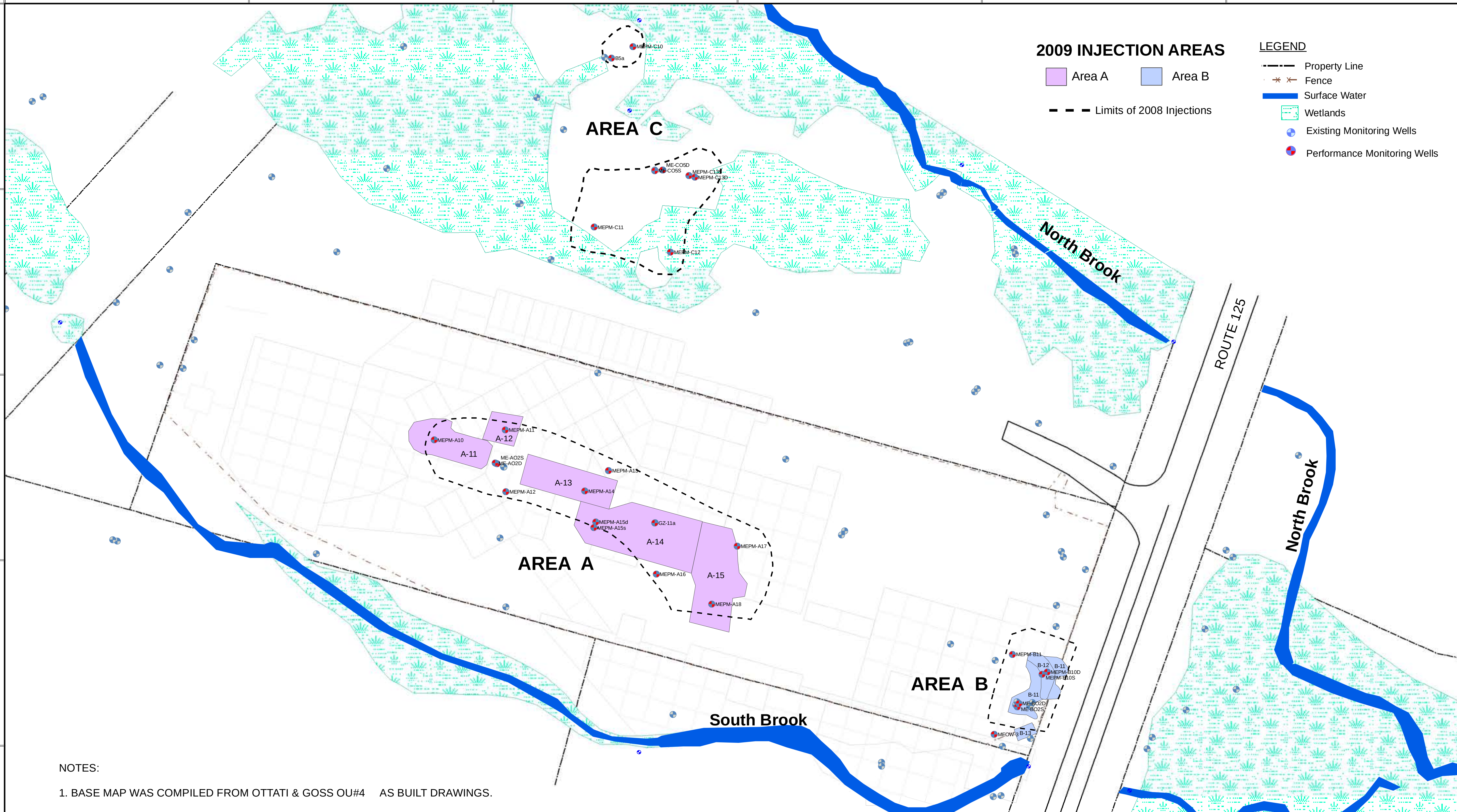
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2001, AERIAL PHOTO 2009

3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.

AECOM

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

FIGURE 5
2008 CHEMICAL OXIDATION REMEDIATION AREAS



NOTES:

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.

2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2001, AERIAL PHOTO 2009

3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.

G:\Projects\HAZWASTE\60100439OTG\Maps\2011-11-29 Fig 6 ISCOarea2009.mxd

Revised 11/30/11 Rev2 (fmrly: BODR_Sheet 1_ Rev0.mxd) Drawn by: W. Abrahams-Dematte

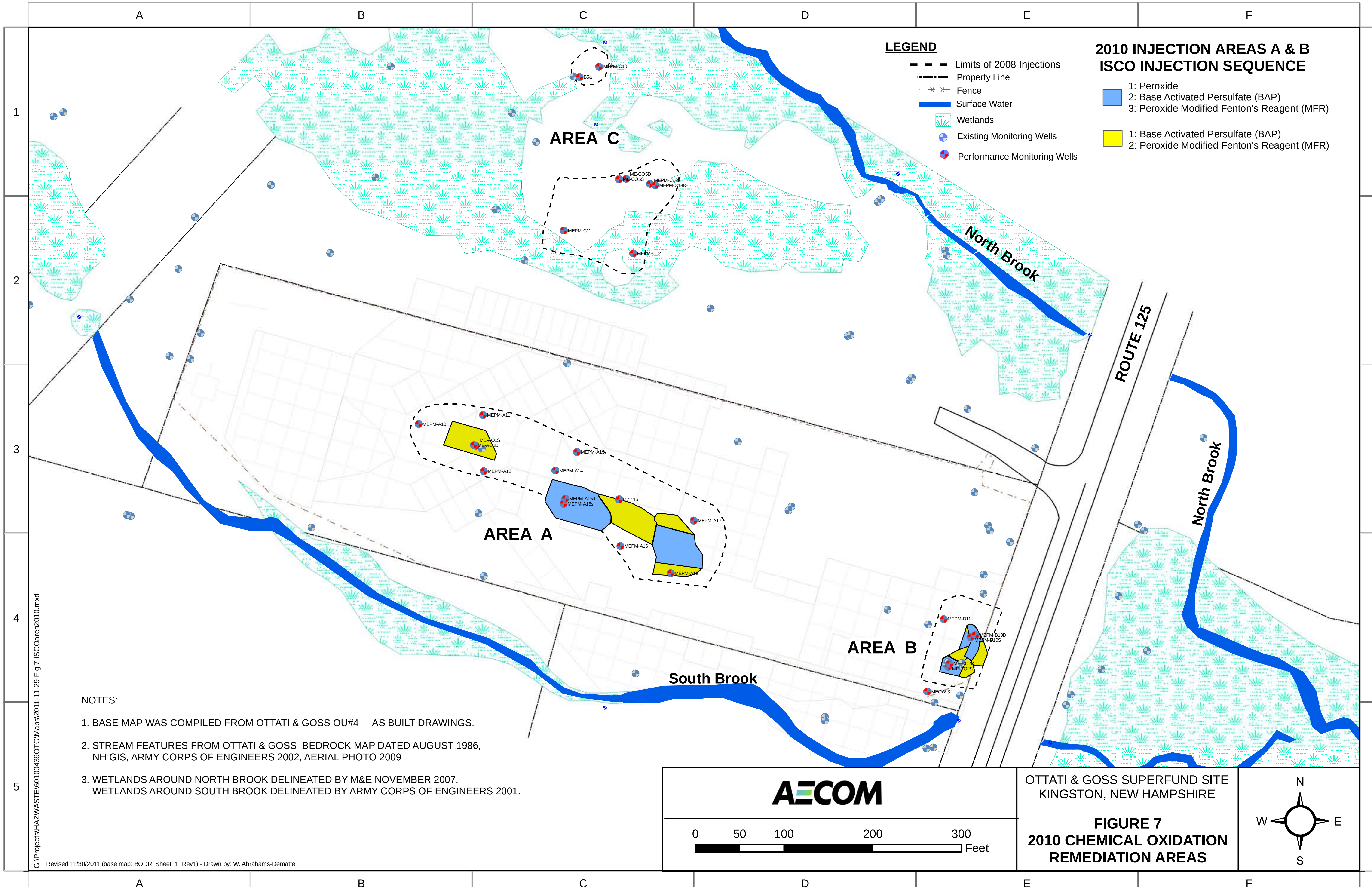
AECOM

0 50 100 200 300 Feet

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

FIGURE 6
2009 CHEMICAL OXIDATION REMEDIATION AREAS

N W E S



NOTES:

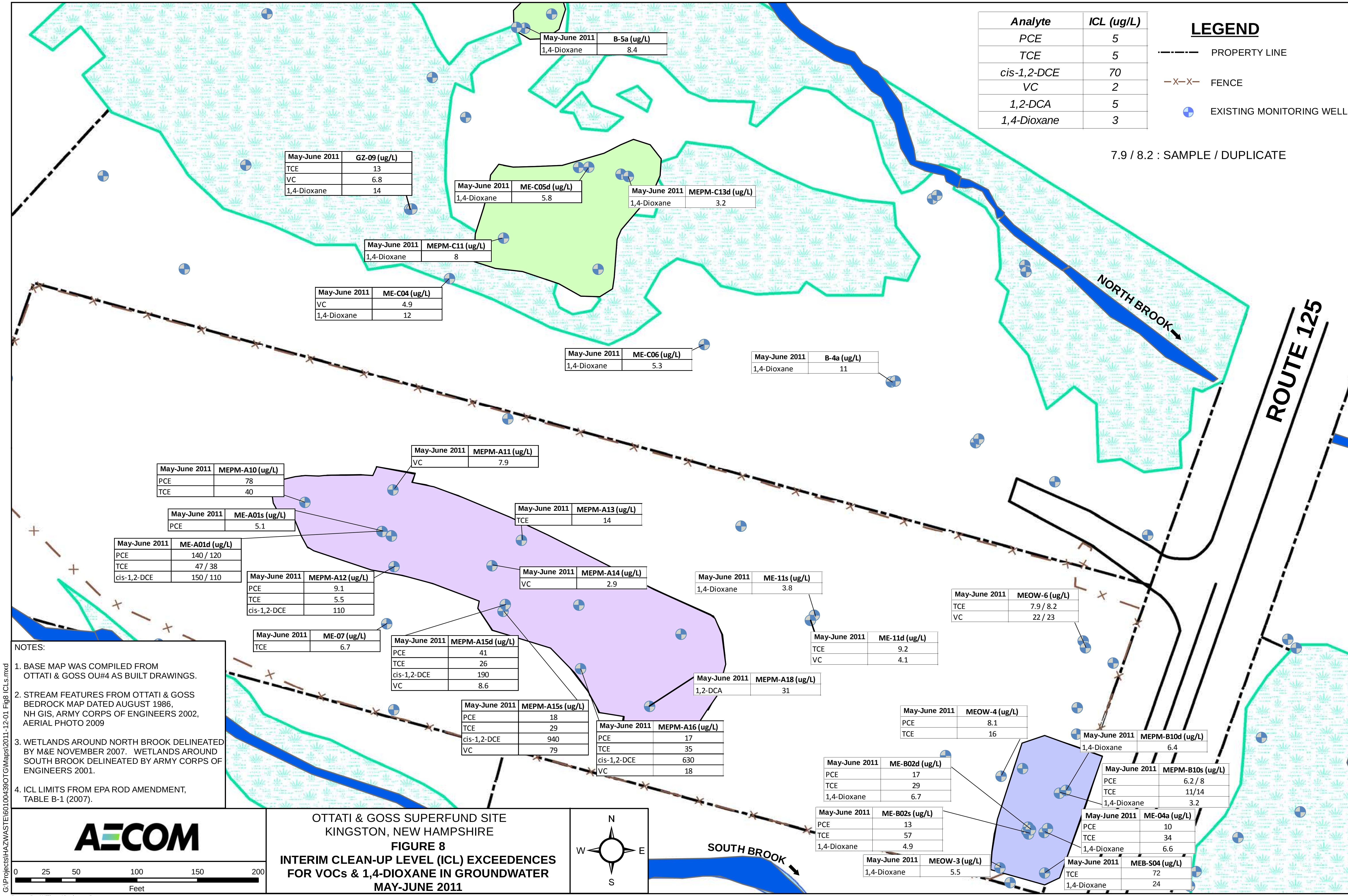
1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.

2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2002, AERIAL PHOTO 2009

3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

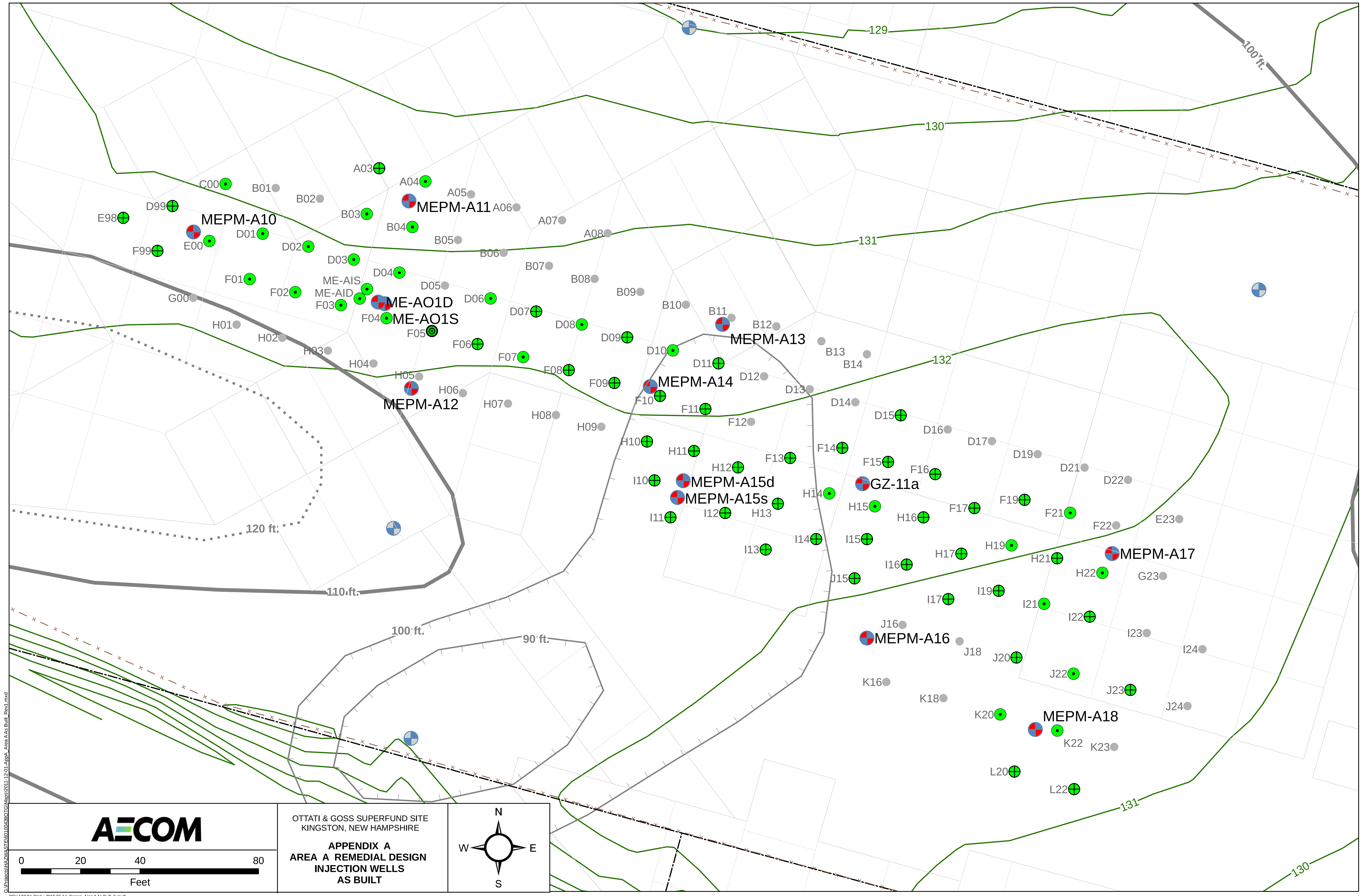
FIGURE 7
2010 CHEMICAL OXIDATION REMEDIATION AREAS



Analyte | ICL (ug/L)
PCE 5
TCE 5
cis-1,2-DCE 70
VC 2
1,2-DCA 5
1,4-Dioxane 3
LEGEND
PROPERTY LINE
FENCE
EXISTING MONITORING WELLS
7.9 / 8.2 : SAMPLE / DUPLICATE
May-June 2011 B-5a (ug/L) 1,4-Dioxane 8.4
May-June 2011 GZ-09 (ug/L) TCE 13 VC 6.8 1,4-Dioxane 14
May-June 2011 ME-C05d (ug/L) 1,4-Dioxane 5.8
May-June 2011 MEPM-C13d (ug/L) 1,4-Dioxane 3.2
May-June 2011 MEPM-C11 (ug/L) 1,4-Dioxane 8
May-June 2011 ME-C04 (ug/L) VC 4.9 1,4-Dioxane 12
May-June 2011 ME-C06 (ug/L) 1,4-Dioxane 5.3
May-June 2011 B-4a (ug/L) 1,4-Dioxane 11
NORTH BROOK
ROUTE 125
May-June 2011 MEPM-A11 (ug/L) VC 7.9
May-June 2011 MEPM-A10 (ug/L) PCE 78 TCE 40
May-June 2011 ME-A01s (ug/L) PCE 5.1
May-June 2011 ME-A01d (ug/L) PCE 140 / 120 TCE 47 / 38 cis-1,2-DCE 150 / 110
May-June 2011 MEPM-A13 (ug/L) TCE 14
May-June 2011 MEPM-A12 (ug/L) PCE 9.1 TCE 5.5 cis-1,2-DCE 110
May-June 2011 MEPM-A14 (ug/L) VC 2.9
May-June 2011 ME-11s (ug/L) 1,4-Dioxane 3.8
May-June 2011 MEOW-6 (ug/L) TCE 7.9 / 8.2 VC 22 / 23
May-June 2011 ME-07 (ug/L) TCE 6.7
May-June 2011 MEPM-A15d (ug/L) PCE 41 TCE 26 cis-1,2-DCE 190 VC 8.6
May-June 2011 ME-11d (ug/L) TCE 9.2 VC 4.1
May-June 2011 MEPM-A18 (ug/L) 1,2-DCA 31
May-June 2011 MEPM-A15s (ug/L) PCE 18 TCE 29 cis-1,2-DCE 940 VC 79
May-June 2011 MEPM-A16 (ug/L) PCE 17 TCE 35 cis-1,2-DCE 630 VC 18
May-June 2011 MEOW-4 (ug/L) PCE 8.1 TCE 16
May-June 2011 MEPM-B10d (ug/L) 1,4-Dioxane 6.4
May-June 2011 ME-B02d (ug/L) PCE 17 TCE 29 1,4-Dioxane 6.7
May-June 2011 MEPM-B10s (ug/L) PCE 6.2 / 8 TCE 11/14 1,4-Dioxane 3.2
May-June 2011 ME-B02s (ug/L) PCE 13 TCE 57 1,4-Dioxane 4.9
May-June 2011 ME-04a (ug/L) PCE 10 TCE 34 1,4-Dioxane 6.6
May-June 2011 MEOW-3 (ug/L) 1,4-Dioxane 5.5
May-June 2011 MEB-S04 (ug/L) TCE 72 1,4-Dioxane 24
SOUTH BROOK
NOTES:
1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2002, AERIAL PHOTO 2009
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.
4. ICL LIMITS FROM EPA ROD AMENDMENT, TABLE B-1 (2007).
AECOM
0 25 50 100 150 200
Feet
OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE
FIGURE 8
INTERIM CLEAN-UP LEVEL (ICL) EXCEEDENCES
FOR VOCs & 1,4-DIOXANE IN GROUNDWATER
MAY-JUNE 2011
N
W
E
S
G:\Projects\HAZWASTE\60100439OTG\Maps\2011-12-01 Fig8 ICLs.mxd
Drawn By: William Abrahams-Dematte

Appendix A

Remedial As-Built Drawings



AECOM

0 20 40 80
Feet

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

APPENDIX A
AREA A REMEDIAL DESIGN
INJECTION WELLS
AS BUILT

N
W E
S

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REV 12/6/11 (fmrly: 2010-07-14_Design_Area A As Built_0.mxd)
Drawn by: W, Abrahams-Dematte

LEGEND

- PROPERTY LINE
- FENCE
- STREAMS OR POND
- WETLANDS
- 129 GROUND SURFACE CONTOURS (USACE 2002)
- 100 BEDROCK CONTOUR INTERPRETATION (METCALF & EDDY 2008)
  - HATCHED CONTOURS INDICATE DEPRESSIONS IN THE DIRECTION OF THE HATCH
  - DASHED WERE INFERRED
- ME-C05s EXISTING MONITORING WELL
- MEPM-A10 PERFORMANCE MONITORING WELL LOCATION
- 2008 INJECTION WELL LOCATIONS - SINGLE WELLS
- 2008 INJECTION WELL LOCATIONS - COUPLETS
- 2008 INJECTION LOCATIONS - DIRECT PUSH POINTS
- 2009 INJECTION WELL LOCATIONS - ADDITIONAL WELLS ADDED

NOTES:

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2001, AERIAL PHOTO 2009
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.
4. BEDROCK CONTOURS (IF SHOWN) REVISED 2008 BASED ON VERTICAL PROFILE BORINGS, PERFORMANCE MONITORING WELL AND AREA C WELL INSTALLATIONS. REVISION COMPLETED BY METCALF & EDDY.

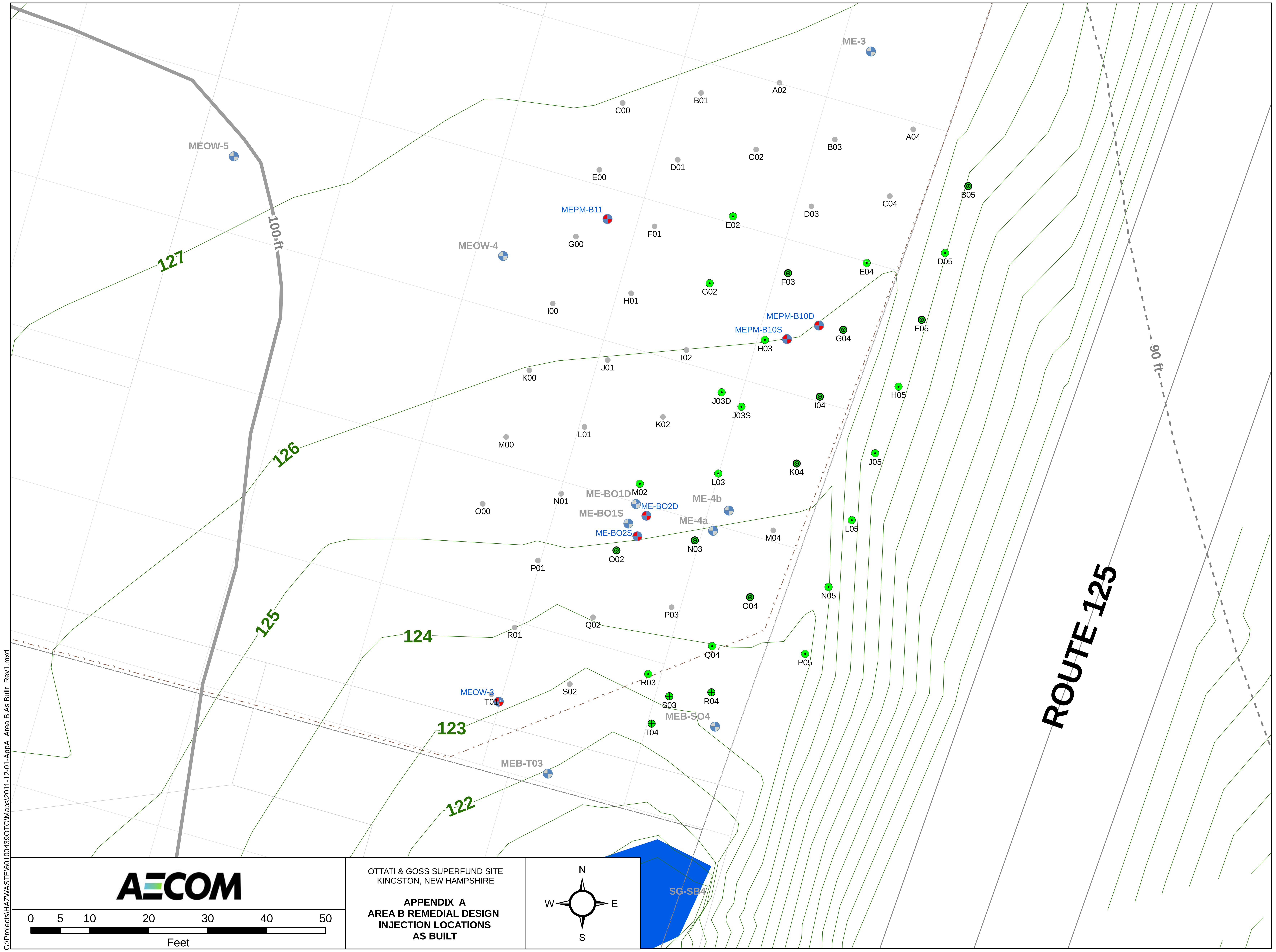
Performance Monitoring Well	Surface Elevation	Till Elevation	Bedrock Elevation	Depth of Overburden	Screen Interval			
	(FT NAVD)	(FT. NAVD)	(FT. NAVD)	(FT.)	(FT. bgs.)		ELEV. (FT NAVD)	
ME-PM-A10	131.57	112.07	104.77	26.8	9	19	122.57	112.57
ME-PM-A11	130.98	110.68	105.58	25.4	10	20	120.98	110.98
ME-PM-A12	132.54	109.04	107.04	25.5	12	22	120.54	110.54
ME-PM-A13	131.8	105.3	<103.8	28+	17	27	114.8	104.8
ME-PM-A14	132.3	104.8	95.3	37	16	26	116.3	106.3
ME-PM-A15S	130.89	-	-	-	14	24	116.89	106.89
ME-PM-A15D	130.87	98.87	96.07	34.8	25	35	105.87	95.87
ME-PM-A16	132.19	105.19	< 105.19	27+	17	27	115.19	105.19
ME-PM-A17	132.09	-	108.59	23.5	17.5	22.5	114.59	109.59
ME-PM-A18	131.91	105.91	105.83	26.8	16	26	115.91	105.91
A01s	131.93	-	-	-	7.48	10.48	124.45	121.45
A01d	131.93	?	113.23	18.7	13.7	18.7	118.23	113.23
GZ-11a	132.9	?	102.8	30.1	2.1	30.1	130.8	102.8

NAVD: NORTH AMERICAN VERTICAL DATUM 1988

Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire
AREA A - Remedial Action Injection Well Installations

Location ID	Date Installed	Well Type	Surface Elevation	Bedrock Elevation	Overburden Depth	Refusal Depth	Drillilng Method	As built well screen interval (Shallow)		As built well screen interval (Deep)		Direct Push Injection Interval (2008)	
			(ft. NAVD88)	(ft. NAVD88)	(ft.)	(ft. bgs)		(ft. bgs)		(ft. bgs)		(ft. bgs)	
A-03	8/4/2009	1" PVC	130.5 est	105.5 est	25 est	>20	HSA	11	19				
A-04	2008	1" PVC	130.5	105.5	25	>17.7	DP	7.7	17.7				
A-05	2008	1" PVC	130.6	105.5	25.1	27	DP	7	19			21	27
A-06	2008	1" PVC	130.7	105.5	25.2	>21.3		7.3	21.3				
A-07	2008	NA	130.8	104	26.8	27	DP					6.5	27
A-08	2008	1" PVC	131	103.5	27.5			7.3	15.3	15.3	20.3		
B-01	2008	1" PVC	130.9	105	25.9			8	16.5				
B-02	2008	1" PVC	130.9	105	25.9			7	19				
B-03	2008	1" PVC	130.9	105.5	25.4	>19.3	DP	7.8	19.3				
B-04	2008	1" PVC	130.9	105.5	25.4	>19	DP	7	19				
B-05	2008	1" PVC	130.9	105.5	25.4			7.75	24.75				
B-06	2008	NA	131	104	27	24	DP					6.5	24
B-07	2008	1" PVC	131.1	104	27.1			7	15	16	24		
B-08	2008	NA	131.2	104	27.2	20	DP					6.5	20
B-09	2008	NA	131.3	105	26.3	20	DP					15	20
B-10	2008	NA	131.4	104	27.4	20	DP					15	20
B-11	2008	NA	131.5	103	28.5	21	DP					15	21
B-12	2008	NA	131.6	103	28.6	21	DP					15	21
B-13	2008	NA	131.7	103	28.7	23	DP					15	23
B-14	2008	NA	131.8	103	28.8	28	DP					16	28
C-00	2008	1" PVC	131.1	104	27.1	27	DP	7	18				
D-01	2008	1" PVC	131.1	108	23.1	>18.5	DP	7	18.5				
D-02	2008	1" PVC	131.1	108	23.1	>19.4	DP	7.4	19.4				
D-03	2008	1" PVC	131.1	108	23.1	>19	DP	7	19				
D-04	2008	1" PVC	131.3	108	23.3			8.9	13.9				
D-05	2008	NA	131.2	105	26.2	20	DP					6.5	20
D-06	2008	1" PVC	131.3	105	26.3	>24	HSA	6.5	14.5	16	24		
D-07	8/4/2009	1" PVC	131.4	104	27.4	>25	HSA	7	14	15.5	23.5	14	24
D-08	2008	1"S/2"D PVC	131.6	104	27.6	>24	HSA	6.7	14.7	16	24		
D-09	8/10/2009	1" PVC	131.6	102	29.6	>26	HSA	18	26			15	25
D-10	2008	1" PVC	131.6	100	31.6	>25	HSA	15	25				
D-11	8/10/2009	1" PVC	131.8	99	32.8	>26	HSA	18	26			15	21
D-12	2008	NA	131.8	99	32.8	22	DP					15	22
D-13	2008	NA	132	100	32	20	DP					15	20
D-14	2008	NA	132.1	103	29.1	23	DP					16	23
D-15	2008	2" PVC	132.2	103	29.2	>24	HSA	16	24			16	21
D-16	2008	NA	132.3	103	29.3	26.5	DP					16	26.5
D-17	2008	NA	132.3	107	25.3	22.5	DP					16	22.5
D-19	2008	NA	132.3	107	25.3	24	DP					18	24
D-21	2008	NA	132.2	107	25.2	27	DP					18	27
D-22	2008	NA	132.2	107	25.2	25	DP					18	25
D-99	8/5/2009	1" PVC	131.1 est	104 est	27.1 est	>19	HSA	11	19				
E-00	2008	1" PVC	131.3	105	26.3	>18	DP	7	18				
E-00	2008	1" PVC	131.3	105	26.3			7	18				
E-23	2008	NA	131.9	108	23.9	24	DP					17	24
E-98	8/7/2009	1" PVC	131.3 est	105 est	26.3 est	>20	HSA	10.5	18.5				
F-01	2008	1" PVC	131.6	109	22.6	>19.2	DP	7.2	19.2				
F-02	2008	1" PVC	131.6	109	22.6	>19	DP	7	19				
F-03	2008	1" PVC	131.5	109	22.5	>18.2	DP	7.2	18.2				
F-04	2008	1" PVC	131.7	106.5	25.2	19	AUGER	6.5	19				
F-05	2008	1" PVC	131.8	106.5	25.3	24	AUGER	6.6	14.6	16	24		
F-06	8/5/2009	1" PVC	131.8	104	27.8	>25	HSA	17	25			6.5	21
F-07	2008	1"S/2"D PVC	132	104	28	>24	HSA	6.5	14.5	16	24		
F-08	8/10/2009	1" PVC	132	102	30	>24	HSA	18	24			6.5	24
F-09	8/10/2009	1" PVC	131.9	101	30.9	>26	HSA	18	26			15	20
F-10	8/7/2009	1" PVC	131.9	99	32.9	>26	HSA	18	26			15	24
F-11	8/11/2009	1" PVC	132	97	35	>26	HSA	18	26			15	21
F-12	2008	NA	132.1	97	35.1	26	DP					15	26
F-13	2008	1" PVC	132.2	99	33.2	31.8 - BR	HSA	17	24			15	24
F-14	8/14/2009	1" PVC	132.2	102	30.2	>25.5	HSA	17	24			16	25.5
F-15	8/17/2009	1" PVC	132.3	103	29.3	>25	HSA	17	24			16	25
F-16	8/17/2009	1" PVC	132.4	103	29.4	>24	HSA	17	24			16	20
F-17	2008	1" PVC	132.3	107	25.3	>25	HSA	18	25			16	22
F-19	2008	1" PVC	132	108	24	>25	HSA	17	24			18	24
F-21	2008	1" PVC	132.1	107.5	24.6	>25	HSA	18	25				
F-22	2008	1" PVC	132.2	107	25.2			18	23				
F-99	8/5/2009	1" PVC	131.5 est	105 est	26.5 est	>19	HSA	11	19				
G-00	2008	1" PVC	131.8	105	26.8			7	19				
G-23	2008	NA	131.8	107	24.8	20	DP					18	20
H-01	2008	1" PVC	131.9	110	21.9			7	19				
H-02	2008	1" PVC	131.9	110	21.9			7.4	19.4				
H-03	2008	1" PVC	131.9	110	21.9			6.5	19				
H-04	2008	1"S/2"D PVC	132	110	22			6.6	14.6	16	24		
H-05	2008	NA	132	109.5	22.5	20	DP					6.5	20
H-06	2008	1"S/2"D PVC	132.1	107.5	24.6			6	14	16	24		
H-07	2008	NA	132.2	105	27.2	19	DP					6.5	19
H-08	2008	1"S/2"D PVC	132.1	102	30.1			6.6	14.6	16	24		
H-09	2008	NA	132.2	101	31.2	17	DP					15	17
H-10	8/7/2009	1" PVC	132.2	99	33.2	>24	HSA	18	24			15	24
H-11	8/11/2009	1" PVC	132.3	97	35.3	>24	HSA	18	24			15	24
H-12	8/12/2009	1" PVC	132.4	97	35.4	>24	HSA	18	24			18	20
H-13	8/12/2009	1" PVC	132.5	98	34.5	>24	HSA	17	24			16	20
H-14	2008	1" PVC	132.3	101	31.3	>24	HSA	14	24				
H-15	2008	1" PVC	132.2	103	29.2	>25	HSA	15	25				
H-16	8/17/2009	1" PVC	132.1	103	29.1	24	HSA	17	24			16	24
H-17	2008	1" PVC	132.1	107	25.1	>24	HSA	17	24			16	20
H-19	2008	1" PVC	132	107.5	24.5	>25	HSA	18	25				
H-21	2008	1" PVC	132	108	24	>25	HSA	16.5	24.5			18	25
H-22	2008	1" PVC	132	108.5	23.5	>22	HSA	18	22				
I-10	8/11/2009	1" PVC	132.4 est	96 est	36.4 est	>24	HSA	18	24				
I-11	8/11/2009	1" PVC	132.4 est	96 est	36.4 est	>24	HSA	18	24				
I-12	8/12/2009	1" PVC	132.5	96	36.5	>24	HSA	18	24			15	20
I-13	8/14/2009	1" PVC	132.4	97	25.1	>24	HSA	17	24			15	22.5
I-14	8/14/2009	1" PVC	132.1	99	33.1	>24	HSA	17	24			16	24
I-15	8/14/2009	1" PVC	132.2	101	31.2	>24	HSA	17	24			16	19.5
I-16	2008	1" PVC	132.3	101	31.3	>24	HSA	17	24			16	21
I-17	2008	1" PVC	132	106.5	25.5	>24	HSA	17	24			15	20
I-19	2008	1" PVC	131.9	106.5	25.4	>25	HSA	17	25			15	24
I-21	2008	1" PVC	131.8	106.5	25.3	>23	HSA	15	23				
I-22	8/17/2009	1" PVC	131.7	107	24.7	22.5	HSA	16	22.5			15	22
I-23	2008	NA	131.5	105	26.5	22	DP					15	22
I-24	2008	1" PVC	131.3	104	27.3	26	DP	15	20			19	26
J-15	8/17/2009	1" PVC	132	101	31	>24	HSA	17	22.5			16	24
J-16	2008	NA	131.9	103	28.9	19.5	DP					16	19.5
J-18	2008	NA	131.8	105	26.8	21	DP					15	21
J-20	2008	1" PVC	131.7	104	27.7	>24	HSA	17	24			15	22
J-22	2008	1" PVC	131.5	103	28.5	>22	HSA	15	22				
J-23	2008	1" PVC	131.3	102	29.3	26.3 - BR	HSA	17	22			16	23
J-24	2008	NA	131.2	101	30.2	22	DP					15	22
K-16	2008	NA	131.7	102	29.7	19	DP					16	19
K-18	2008	NA	131.7	103	28.7	20	DP					12	20
K-20	2008	1" PVC	131.6	104	27.6	>21.5	HSA	12	21.5				
K-22	2008	1" PVC	131.4	105	26.4	>23	HSA	12	23				
K-23	6/30/1905	NA	131.2	104	27.2	24	DP					12	24
L-20	8/17/2009	1" PVC	131.5 est	104.5 est	27 est	>26	HSA	18	26				
L-22	8/17/2009	1" PVC	131.5 est	104.5 est	27 est	>24	HSA	17	23				

NAVD: North American Vertical Datum 1988



OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

APPENDIX A
AREA B REMEDIAL DESIGN
INJECTION LOCATIONS
AS BUILT

G:\Projects\HAZWASTE\60100439OTG\Maps\2011-12-01-AppA_Area B As Built_Rev1.mxd

Revised 12/01/11 (fmly: 2010-07-14_Design_Area B As Built_0.mxd)
Drawn by: W. Abrahams-Dematte

Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire
AREA B - Remedial Action Injection Well Installations

Location ID	Date Installed June/July	Well Type	Surface Elevation (ft. NAVD88)	Bedrock Elevation (ft. NAVD88)	Depth of Overburden (ft.)	Refusal Depth (ft. bgs)	Drilling Method	As built well screen interval (Shallow) (ft. bgs)		As built well screen interval (Deep) (ft. bgs)		Direct Push Injection Interval (2008) (ft. bgs)	
A02	2008	NA	126.9	95	31.9	23						11	23
A04	2008	NA	126.8	95	31.8	29						10	29
B01	2008	NA	126.9	95	31.9	27						11	27
B03	2008	NA	126.5	95	31.5	21						11	21
B05	2008	1" PVC	128	95	33	27	DP	8	15	15	22	23	27
C00	2008	NA	127	96	31	27						11	27
C02	2008	NA	125.5	96	29.5	22						11	22
C04	2008	1" PVC	126.3	97	29.3	31	DP	10	20			21	29
D01	2008	1" PVC	126.7	96.5	30.2	30.7	HSA	10.7	20.7	20.7	30.7		
D03	2008	1" PVC	126.5	97	29.5	27	DP	9	19			20	27
D05	2008	1" PVC	128	95.5	32.5			10	20				
E00	2008	NA	126.7	97	29.7	25						11	25
E02	2008	1" PVC	126.5	95.5	31	>28.8	HSA	8.6	18.6	18.8	28.8		
E04	2008	1" PVC	126	97	29	28	DP	9	19			20	28
F01	2008	1" PVC	126.5	97.5	29	24		16	23.5			16	24
F03	2008	1" PVC	126.2	97.5	28.7	>27.5	HSA	9.2	19.2	19	27.5		
F05	2008	1" PVC	127.5	97	30.5	>22	DP	8	15	15	22		
G00	2008	NA	126.5	98	28.5	22						15	22
G02	2008	1" PVC	126.3	98	28.3	26	DP	9.5	19.5			22	26
G04	2008	1"S/2"D PVC	125.8	97.5	28.3	>29	HSA	8.5	18.5	19	29		
H01	2008	1" PVC	126.2	98	28.2			14.5	22			22	23.5
H03	2008	1" PVC	126	98	28	26	DP	8	18			17	26
H05	2008	1" PVC	127.5	97.5	30	14		9	14				
I00	2008	NA	126.2	99	27.2	21						15	21
I02	2008	1" PVC	126	98.5	27.5	24	DP	10	20			14	24
I04	2008	1"S/2"D PVC	125.7	98.5	27.2	>27	HSA	4.8	14.8	17	27		
J01	2008	NA	126	99.5	26.5	22						15	22
J03	2008S/2009D	1" PVC	125.5	99	26.5	>20	HSA	7	9.5	13	20		
J05	2008	1" PVC	127.5	98.5	29	>17	HSA	7	17				
K00	2008	NA	126	100.5	25.5	18						15	18
K02	2008	NA	125.7	99.5	26.2	22						15	22
K04	2008	1"S/2"D PVC	125.2	99	26.2	>27	HSA	4.8	14.8	17	27		
L01	2008	NA	125.6	100.5	25.1	19						15	19
L03	2008	1" PVC	125.2	100	25.2	>17.5	HSA	12.5	17.5	12.5	17.5		
L05	2008	1" PVC	126.5	98.5	28			9	19				
M00	2008	NA	125.7	101	24.7	22.5						15	22.5
M02	2008	1" PVC	125.3	100.5	24.8	>18.5	HSA	8.5	18.5			10	14
M04	2008	1"S/2"D PVC	124.9	99.5	25.4			5	15	17	26		
N01	2008	1" PVC	125.3	101.5	23.8			7.5	12.5	15	20		
N03	2008	1" PVC	125	101	24	>22	HSA	6	16	17	22		
N05	2008	1" PVC	125	100	25	14		9	14				
O00	2008	1" PVC	125.4	102	23.4	18	DP	7	17			10	18
O02	2008	1" PVC	125	101.5	23.5	>21	HSA	6	16	16	21		
O04	2008	1" PVC	124.5	101	23.5	>22.9	HSA	4.8	11.8	12.9	22.9		
P01	2008	1" PVC	124.9	102	22.9	22	DP	7	12			13	22
P03	2008	1" PVC	124.2	101.5	22.7	22	DP	6	16			16	22
P05	2008	1" PVC	124	101	23			8	13				
Q02	2008	1" PVC	124	102.5	21.5			6	16	16	20		
Q04	2008	1" PVC	123.8	102	21.8	>21	DP	11	21				
R01	2008	1" PVC	124	103	21			5.5	15.5				
R03	2008	1" PVC	123.2	102.5	20.7	>21	DP	8	13			14	21
R04	2009	New Well	123.5 est	96.5 est	27 est	>18	DP	4	11	12	18		
S02	2008	1" PVC	123	100	23			7	17				
S03	2009	New Well	123.1 est	96.5 est	26.6 est	>18	DP	5	10	11	18		
T01	2008	1" PVC	123.2	100	23.2			7	17				
T04	2009	New Well	122.8 est	96.5 est	26.3 est	>18	DP	5	12	13	18		

NAVD: North American Vertical Datum 1988

LEGEND

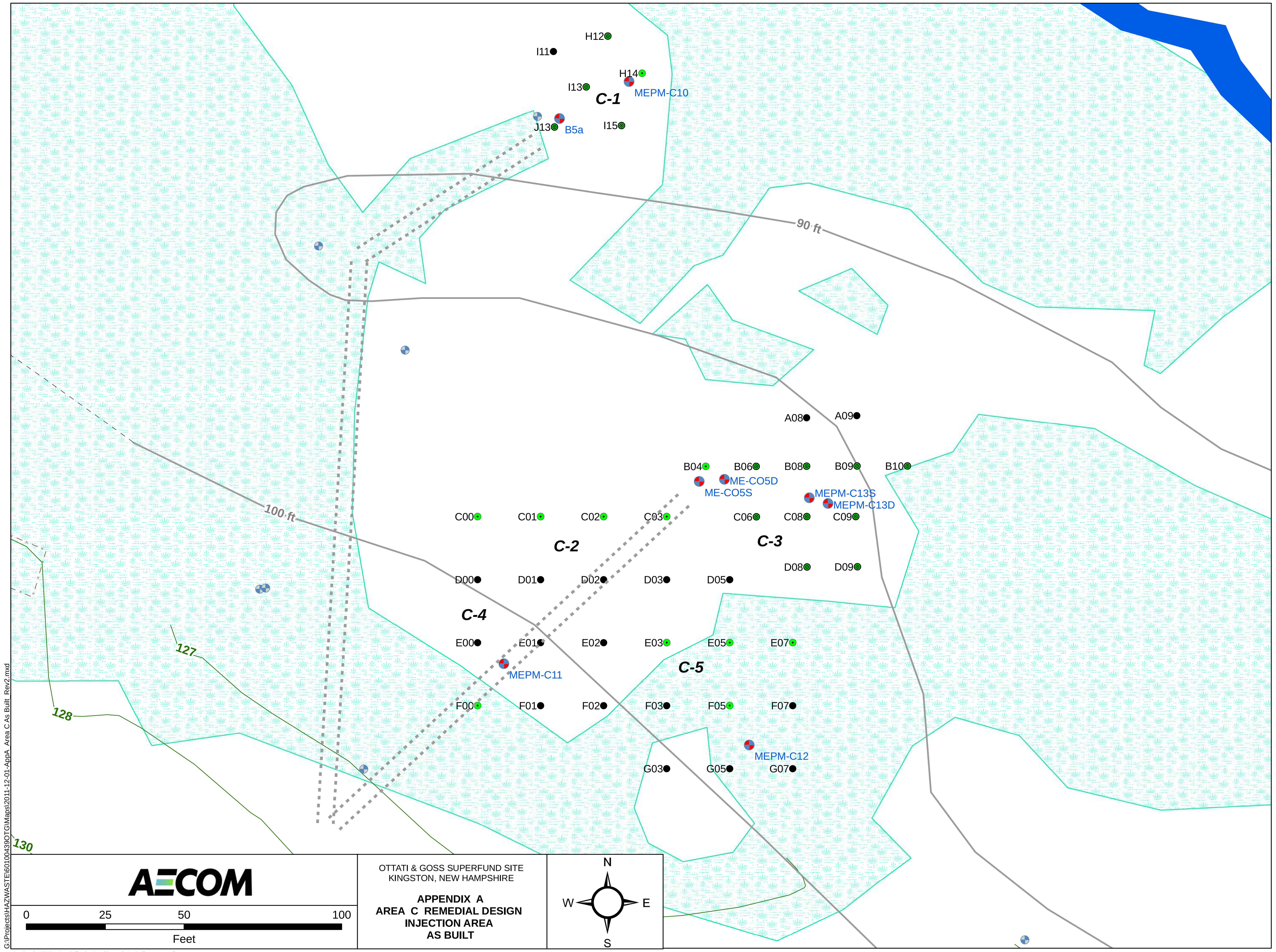
- PROPERTY LINE
- FENCE
- STREAMS OR POND
- WETLANDS
- ME-C05s EXISTING MONITORING WELL
- ME-A10 PERFORMANCE MONITORING WELL LOCATION
- SINGLE INJECTION WELL LOCATION
- COUPLET INJECTION WELL LOCATION
- 2008 INJECTION LOCATION
- 2009 INJECTION WELL LOCATIONS - ADDITIONAL WELLS ADDED
- 129 GROUND SURFACE CONTOURS (USACE 2002)
- 100 BEDROCK CONTOUR INTERPRETATION (METCALF & EDDY 2008)
  - HATCHED CONTOURS INDICATE DEPRESSIONS IN THE DIRECTION OF THE HATCH
  - DASHED WERE INFERRED

NOTES:

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPs OF ENGINEERS 2001, AERIAL PHOTO 2009
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPs OF ENGINEERS 2001.
4. BEDROCK CONTOURS (IF SHOWN) REVISED 2008 BASED ON VERTICAL PROFILE BORINGS, PERFORMANCE MONITORING WELL AND AREA C WELL INSTALLATIONS. REVISION COMPLETED BY METCALF & EDDY.

Performance Monitoring Well	Surface Elevation (FT. NAVD)	Till Elevation (FT. NAVD)	Bedrock Elevation (FT. NAVD)	Depth of Overburden (FT.)	Screen Interval (FT. bgs.)		Screen Interval ELEV. (FT.NAVD)	
ME-PM-B10s	126.36	-	-	-	10	20	116.36	106.36
ME-PM-B10d	126.37	-	95.7 est.	30.67 est	24	29	102.37	97.37
ME-PM-B11	126.94	-	97.5 est.	29.44 est	12	22	114.94	104.94
ME-B02s	124.88	?	-	-	9	17	115.88	107.88
ME-B02d	125.26	?	97.5 est.	27.75 est	19.2	14.2	106.06	101.06
MEOW-03	123.25	106.05	105 est	18.25 est	4	9	119.25	114.25

NAVD: NORTH AMERICAN VERTICAL DATUM 1988



Revised 12/1/11 Rev2 (frmly: RA Sheet C As Built rev1.mxd)
Drawn by: W. Abrahams-Dematte

Ottati & Goss/Kingston Steel Drum Superfund Site : RA TO#28

Kingston, New Hampshire

CONSTRUCTION SUMMARY AS BUILT

Treatment Sub-Areas (Design Treatment Interval)	Location ID	Surface Elevation	Bedrock Elevation	Depth of Overburden	Refusal Depth	Rejection type	Well Screen Interval - S		Well Screen Interval - D		Direct Push Interval	
		ft. NAVD88	ft. NAVD88	ft.	ft. bgs		ft. bgs		ft. bgs		ft. bgs	
							Top	Bottom	Top	Bottom	Top	Bottom
C-1 (14' - 24')	H12	127	93.5	33.5			13	18	19	24		
	H14	127	93	34			14	21			21	24
	I11	127.5	93	34.5	24						14	24
	I13	127.5	92.5	35			13	18	19	24		
	I15	127.5	91.5	36			13	18	19	24		
	J13	127	91.5	35.5	24	Auger	13	18	19	24		
C-2 (20' - 25')	C00	126	98	28			14.5	19.5				
	C01	126	97.5	28.5			16	21				
	C02	126.5	96	30.5			17	22				
	C03	126.5	95	31.5			18	23				
	D01	126.5	98	28.5	23						20	23
	D02	127	97.5	29.5	25						20	25
	D03	126.5	97	29.5	25						20	25
	D05	126	95	31	25						20	25
	E02	127	99	28	23						20	23
C-3 (4' - 23')	B04	126.5	94	32.5	24	DP	5	15			15	24
	B06	126.5	92.5	34			6	16	18	23		
	B08	126.5	91.5	35			6	16	18	23		
	B09	126.5	89.5	37			6	16	18	23		
	B10	126.5	89	37.5			6	16	18	23		
	C06	126	93.5	32.5			6	16	18	23		
	C08	126	92.5	33.5			6	16	18	23		
	C09	126	90.5	35.5			6	16	18	23		
	D08	126	93	33			6	16	18	23		
	D09	126	90.5	35.5			6	16	18	23		
C-4 (16' - 23')	D00	126	100	26	23						16	23
	E00	126	101	25	20						16	20
	E01	126	100	26	21						16	21
	F00	126	102.5	23.5			15.5	18.5				
	F01	126	101.5	24.5	22.5						16	22.5
C-5 (14' - 18')	E03	126.5	98	28.5			14	18				
	E05	126	96.5	29.5			14	18				
	E07	125.5	95	30.5			14	18				
	F02	126	100.5	25.5	18						15	18
	F03	126	99	27	18						15	18
	F05	126	97.5	28.5	19						14	18
	F07	125.5	96	29.5	20						16	20
	G03	126	100.5	25.5	18						15	18
	G05	126.5	99.5	27	18						16	18
	G07	126.5	97.5	29	18						14	19.75

NAVD88: North American Vertical Datum

Performance Monitoring Well	Surface Elevation	Till Elevation	Bedrock Elevation	Depth of Overburden	Screen Interval			
	(FT. NAVD)	(FT. NAVD)	(FT. NAVD)	(FT.)			Elevation (FT. NAVD)	
ME-PM-C10	127.79	-	< 95.79	32+	14	24	113.79	103.79
ME-PM-C11	126.99	108.99	103.49	23.5	14	24	112.99	102.99
ME-PM-C12	126.24	112?	99 est	27.24 est	12	22	114.24	104.24
ME-PM-C13s	126.16	-	-	-	6	16	120.16	110.16
ME-PM-C13d	126.15	96.65	<95.15	31+	17	27	109.15	99.15
ME-C05s	126.3	-	-	-	7.8	17.8	118.47	108.47
ME-C05d	126.47	104?	94.77	31.7	20.2	30.2	106.30	96.30
B-5a	126.61	?	<100.5	26.1+	18.6	25.6	108.05	101.05

NAVD: North American Vertical Datum 1988

NOTES:

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2001, AERIAL PHOTO 2009
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.
4. BEDROCK CONTOURS (IF SHOWN) REVISED 2008 BASED ON VERTICAL PROFILE BORINGS, PERFORMANCE MONITORING WELL AND AREA C WELL INSTALLATIONS. REVISION COMPLETED BY METCALF & EDDY.

LEGEND

PROPERTY LINE

FENCE

STREAMS OR POND

WETLANDS

ACCESS ROUTES INTO AREA C

ME-C05s EXISTING MONITORING WELL

ME-A10 PERFORMANCE MONITORING WELL LOCATION

SINGLE INJECTION WELL LOCATION

COUPLET INJECTION WELL LOCATION

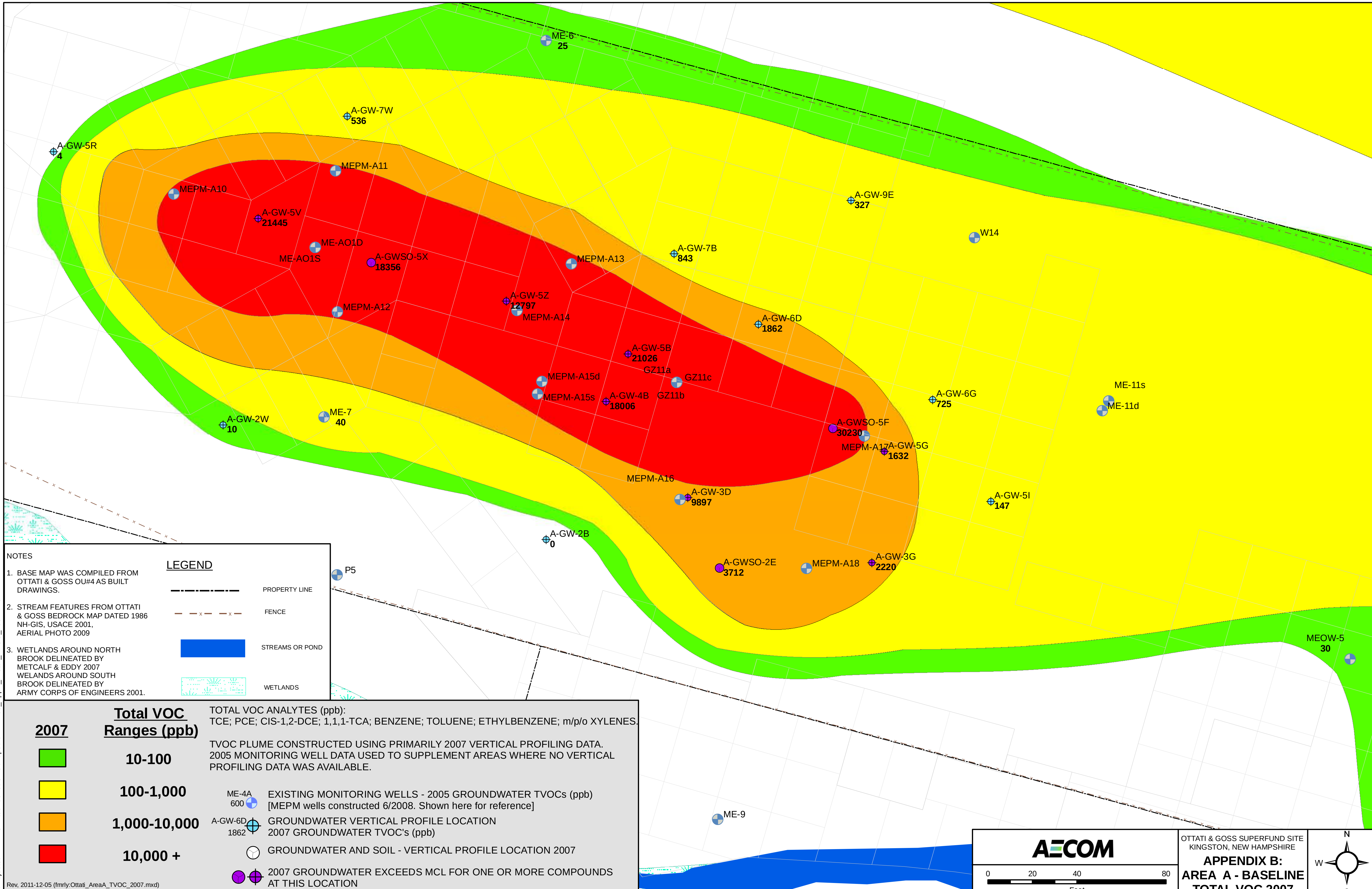
TEMPORARY DIRECT PUSH INJECTION LOCATION

129 GROUND SURFACE CONTOURS (USACE 2002)

100 BEDROCK CONTOUR INTERPRETATION (METCALF & EDDY 2008)
- HATCHED CONTOURS INDICATE DEPRESSIONS IN THE DIRECTION OF THE HATCH
- DASHED WERE INFERRED

Appendix B

Total VOC and 1,4-Dioxane Maps and Figures



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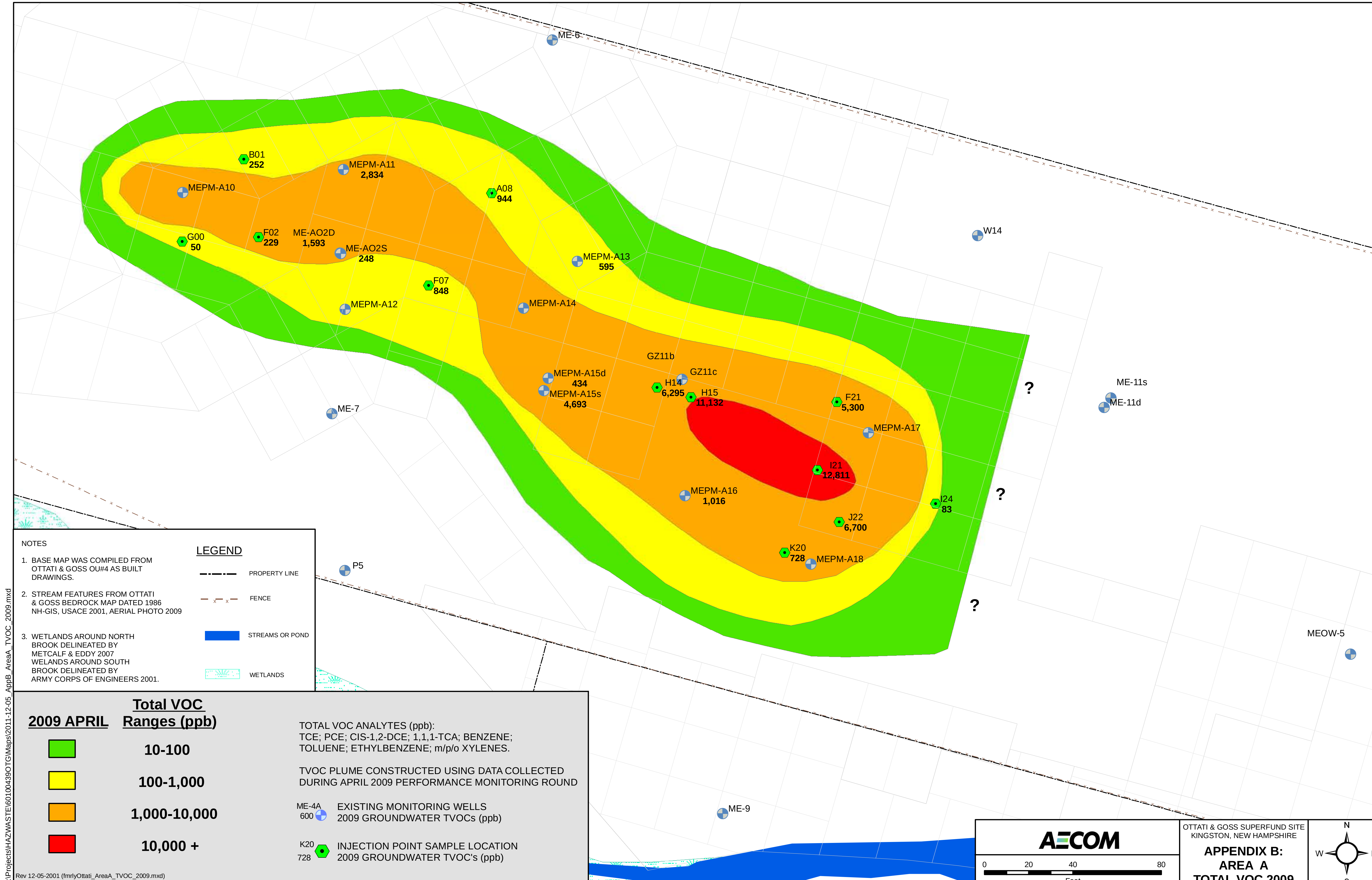
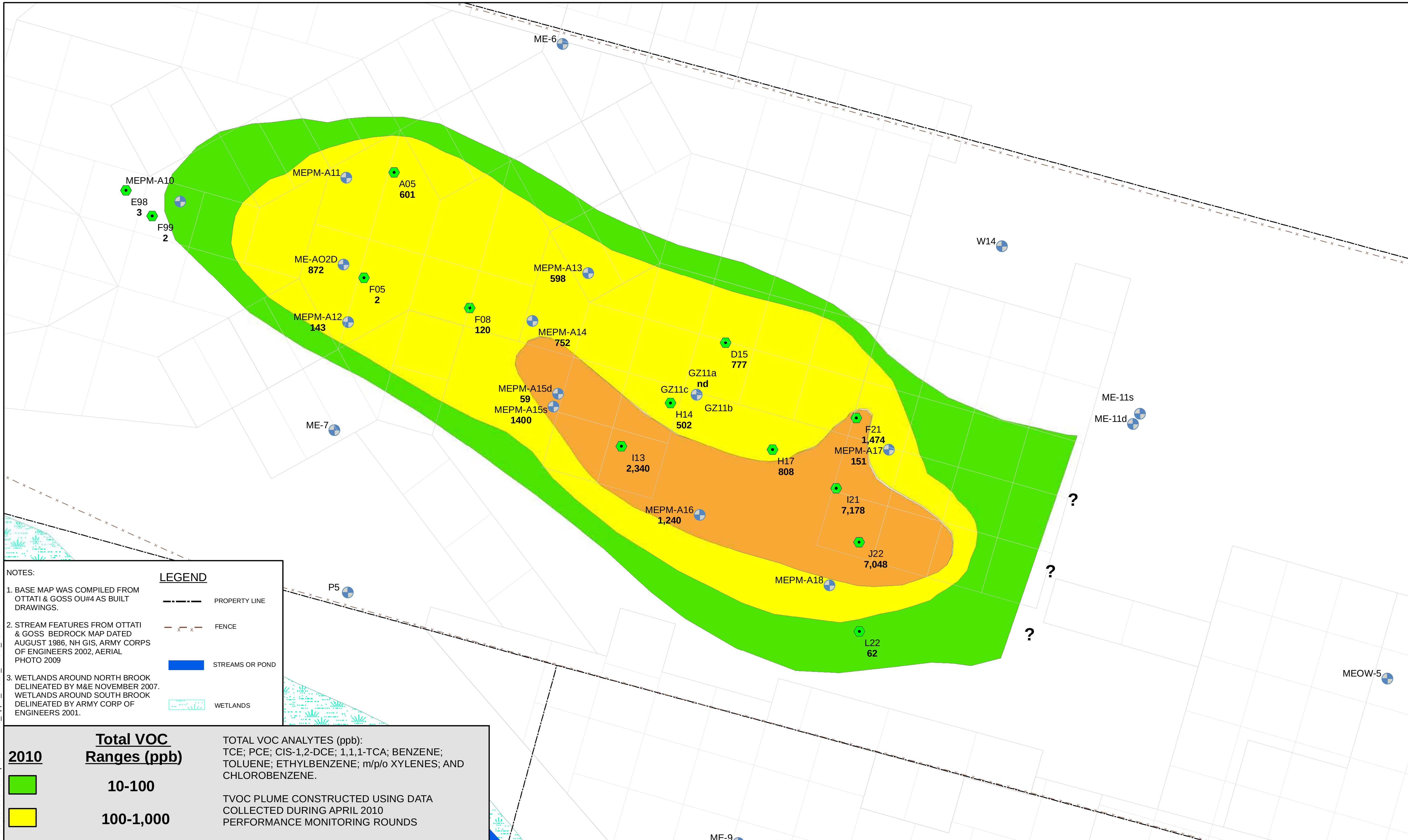

ME-6
B01
252
MEPM-A11
2,834
MEPM-A10
A08
944
G00
50
F02
229
ME-AO2D
1,593
ME-AO2S
248
W14
MEPM-A13
595
F07
848
MEPM-A12
MEPM-A14
GZ11b
GZ11c
MEPM-A15d
434
H14
6,295
H15
11,132
MEPM-A15s
4,693
F21
5,300
ME-11s
ME-11d
ME-7
MEPM-A17
?
I21
12,811
MEPM-A16
1,016
I24
83
J22
6,700
K20
728
MEPM-A18
P5
MEOW-5
ME-9
NOTES
1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED 1986 NH-GIS, USACE 2001, AERIAL PHOTO 2009
3. WETLANDS AROUND NORTH BROOK DELINEATED BY METCALF & EDDY 2007 WELANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.
LEGEND
PROPERTY LINE
FENCE
STREAMS OR POND
WETLANDS
2009 APRIL
Total VOC Ranges (ppb)
10-100
100-1,000
1,000-10,000
10,000 +
TOTAL VOC ANALYTES (ppb):
TCE; PCE; CIS-1,2-DCE; 1,1,1-TCA; BENZENE; TOLUENE; ETHYLBENZENE; m/p/o XYLENES.
TVOC PLUME CONSTRUCTED USING DATA COLLECTED DURING APRIL 2009 PERFORMANCE MONITORING ROUND
ME-4A
600
EXISTING MONITORING WELLS
2009 GROUNDWATER TVOCs (ppb)
K20
728
INJECTION POINT SAMPLE LOCATION
2009 GROUNDWATER TVOC's (ppb)
Rev 12-05-2001 (fmrlyOttati_AreaA_TVOC_2009.mxd)
Drawn by: W. Abrahams-Dematte
G:\Projects\HAZWASTE\60100439OTG\Maps\2011-12-05_AppB_AreaA_TVOC_2009.mxd
AECOM
0
20
40
80
Feet
OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE
APPENDIX B:
AREA A
TOTAL VOC 2009
N
W
E
S



NOTES:

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2002, AERIAL PHOTO 2009
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORP OF ENGINEERS 2001.

LEGEND

PROPERTY LINE
FENCE
STREAMS OR POND
WETLANDS

2010	Total VOC Ranges (ppb)
(green)	10-100
(yellow)	100-1,000
(orange)	1,000-10,000
(red)	10,000 +

TOTAL VOC ANALYTES (ppb):
TCE; PCE; CIS-1,2-DCE; 1,1,1-TCA; BENZENE; TOLUENE; ETHYLBENZENE; m/p/o XYLENES; AND CHLOROBENZENE.

TVOC PLUME CONSTRUCTED USING DATA COLLECTED DURING APRIL 2010 PERFORMANCE MONITORING ROUNDS

ME-4A 600 EXISTING MONITORING WELLS 2010 GROUNDWATER TVOCs (ppb)

K20 728 INJECTION POINT SAMPLE LOCATION 2010 GROUNDWATER TVOC's (ppb)

Rev 12-5-2011 (fmrly: Ottati_AreaA_TVOC_2010.mxd)
Drawn by: W. Abrahams-Dematte

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AECOM

0 20 40 80
Feet

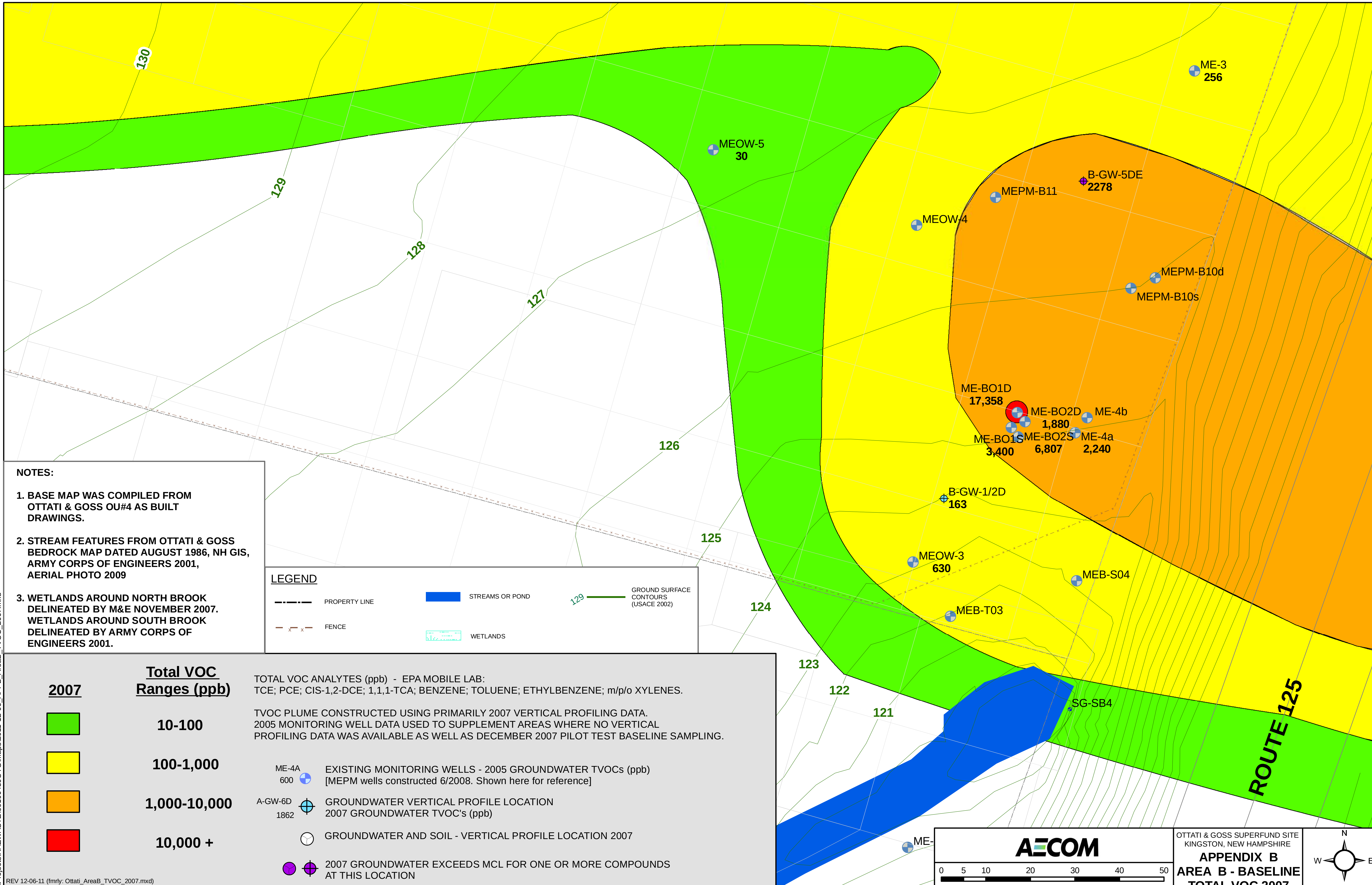
OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

APPENDIX B
AREA A
TOTAL VOC 2010

N W E S

G:\Projects\HAZWASTE\60100439OTG\Maps\2011-12-05_AppB_AreaA_TVOC_2011.mxd

128



NOTES:

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.

2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2001, AERIAL PHOTO 2009

3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.

LEGEND

PROPERTY LINE

STREAMS OR POND

129 GROUND SURFACE CONTOURS (USACE 2002)

FENCE

WETLANDS

2007	Total VOC Ranges (ppb)
	10-100
	100-1,000
	1,000-10,000
	10,000 +

TOTAL VOC ANALYTES (ppb) - EPA MOBILE LAB:
TCE; PCE; CIS-1,2-DCE; 1,1,1-TCA; BENZENE; TOLUENE; ETHYLBENZENE; m/p/o XYLENES.

TVOC PLUME CONSTRUCTED USING PRIMARILY 2007 VERTICAL PROFILING DATA. 2005 MONITORING WELL DATA USED TO SUPPLEMENT AREAS WHERE NO VERTICAL PROFILING DATA WAS AVAILABLE AS WELL AS DECEMBER 2007 PILOT TEST BASELINE SAMPLING.

ME-4A 600 — EXISTING MONITORING WELLS - 2005 GROUNDWATER TVOCs (ppb) [MEPM wells constructed 6/2008. Shown here for reference]

A-GW-6D 1862 — GROUNDWATER VERTICAL PROFILE LOCATION 2007 GROUNDWATER TVOC's (ppb)

GROUNDWATER AND SOIL - VERTICAL PROFILE LOCATION 2007

2007 GROUNDWATER EXCEEDS MCL FOR ONE OR MORE COMPOUNDS AT THIS LOCATION

AECOM

0 5 10 20 30 40 50
Feet

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

APPENDIX B
AREA B - BASELINE
TOTAL VOC 2007

N W E S

REV 12-06-11 (fmrly: Ottati_AreaB_TVOC_2007.mxd)
Drawn by: W. Abrahams-Dematte

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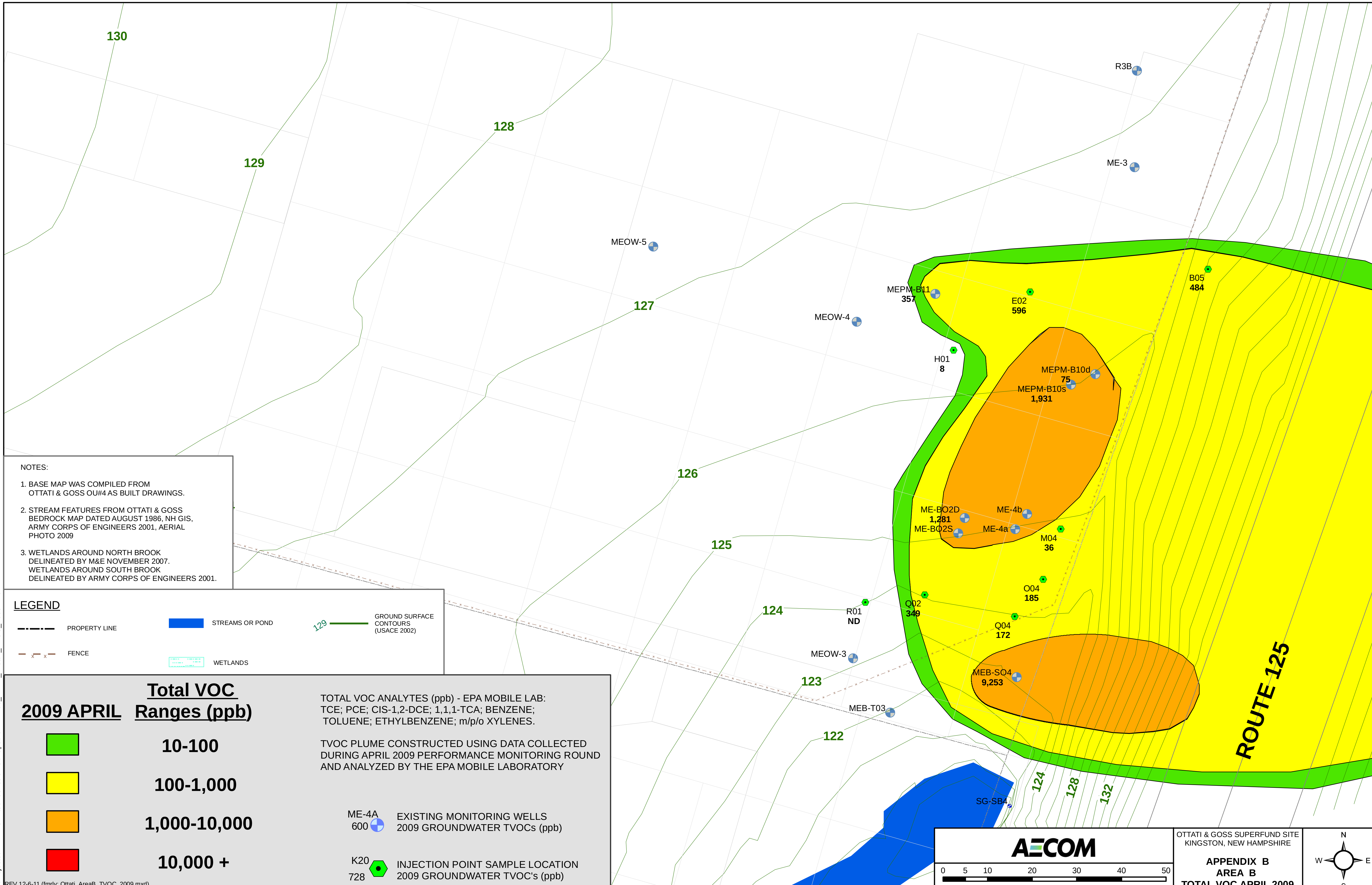

NOTES:

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2001, AERIAL PHOTO 2009
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.

LEGEND

PROPERTY LINE

FENCE

STREAMS OR POND

WETLANDS

129 GROUND SURFACE CONTOURS (USACE 2002)

2009 APRIL	Total VOC Ranges (ppb)
	10-100
	100-1,000
	1,000-10,000
	10,000 +

TOTAL VOC ANALYTES (ppb) - EPA MOBILE LAB: TCE; PCE; CIS-1,2-DCE; 1,1,1-TCA; BENZENE; TOLUENE; ETHYLBENZENE; m/p/o XYLENES.

TVOC PLUME CONSTRUCTED USING DATA COLLECTED DURING APRIL 2009 PERFORMANCE MONITORING ROUND AND ANALYZED BY THE EPA MOBILE LABORATORY

ME-4A 600 EXISTING MONITORING WELLS 2009 GROUNDWATER TVOCs (ppb)

K20 728 INJECTION POINT SAMPLE LOCATION 2009 GROUNDWATER TVOC's (ppb)

AECOM

0 5 10 20 30 40 50
Feet

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

APPENDIX B
AREA B
TOTAL VOC APRIL 2009

N W E S

G:\Projects\HAZWASTE\60100439OTG\Maps\2011-12-06_APPB_AreaB_TVOC_2009.mxd

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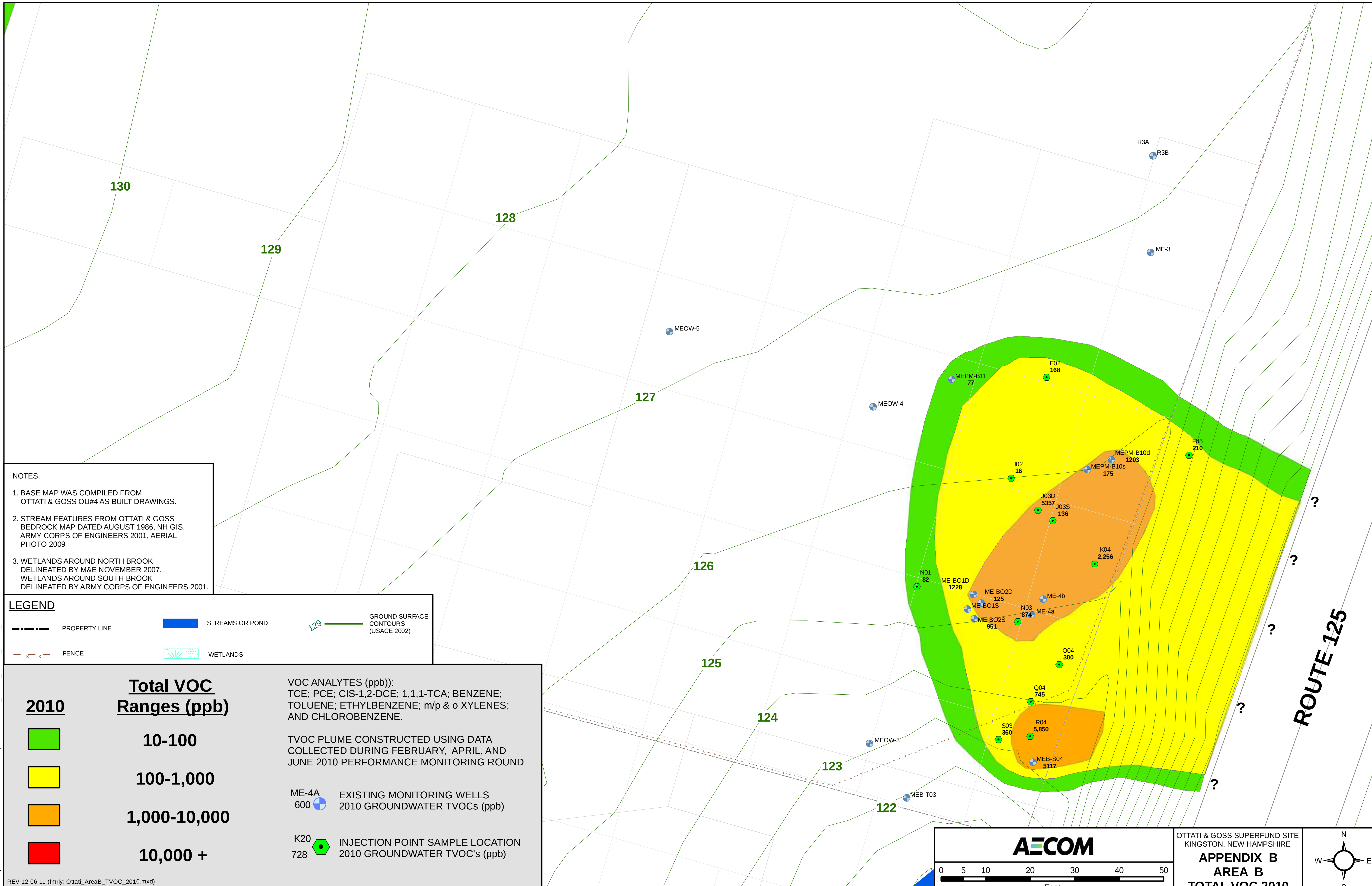

NOTES:

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.

2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2001, AERIAL PHOTO 2009

3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.

LEGEND

- PROPERTY LINE
- FENCE
- STREAMS OR POND
- WETLANDS
- 129 GROUND SURFACE CONTOURS (USACE 2002)

2010	Total VOC Ranges (ppb)
green	10-100
yellow	100-1,000
orange	1,000-10,000
red	10,000 +

VOC ANALYTES (ppb)): TCE; PCE; CIS-1,2-DCE; 1,1,1-TCA; BENZENE; TOLUENE; ETHYLBENZENE; m/p & o XYLENES; AND CHLOROBENZENE.

TVOC PLUME CONSTRUCTED USING DATA COLLECTED DURING FEBRUARY, APRIL, AND JUNE 2010 PERFORMANCE MONITORING ROUND

ME-4A 600 — EXISTING MONITORING WELLS 2010 GROUNDWATER TVOCs (ppb)

K20 728 — INJECTION POINT SAMPLE LOCATION 2010 GROUNDWATER TVOC's (ppb)

REV 12-06-11 (fmrly: Ottati_AreaB_TVOC_2010.mxd)
Drawn by: W. Abrahams-Dematte

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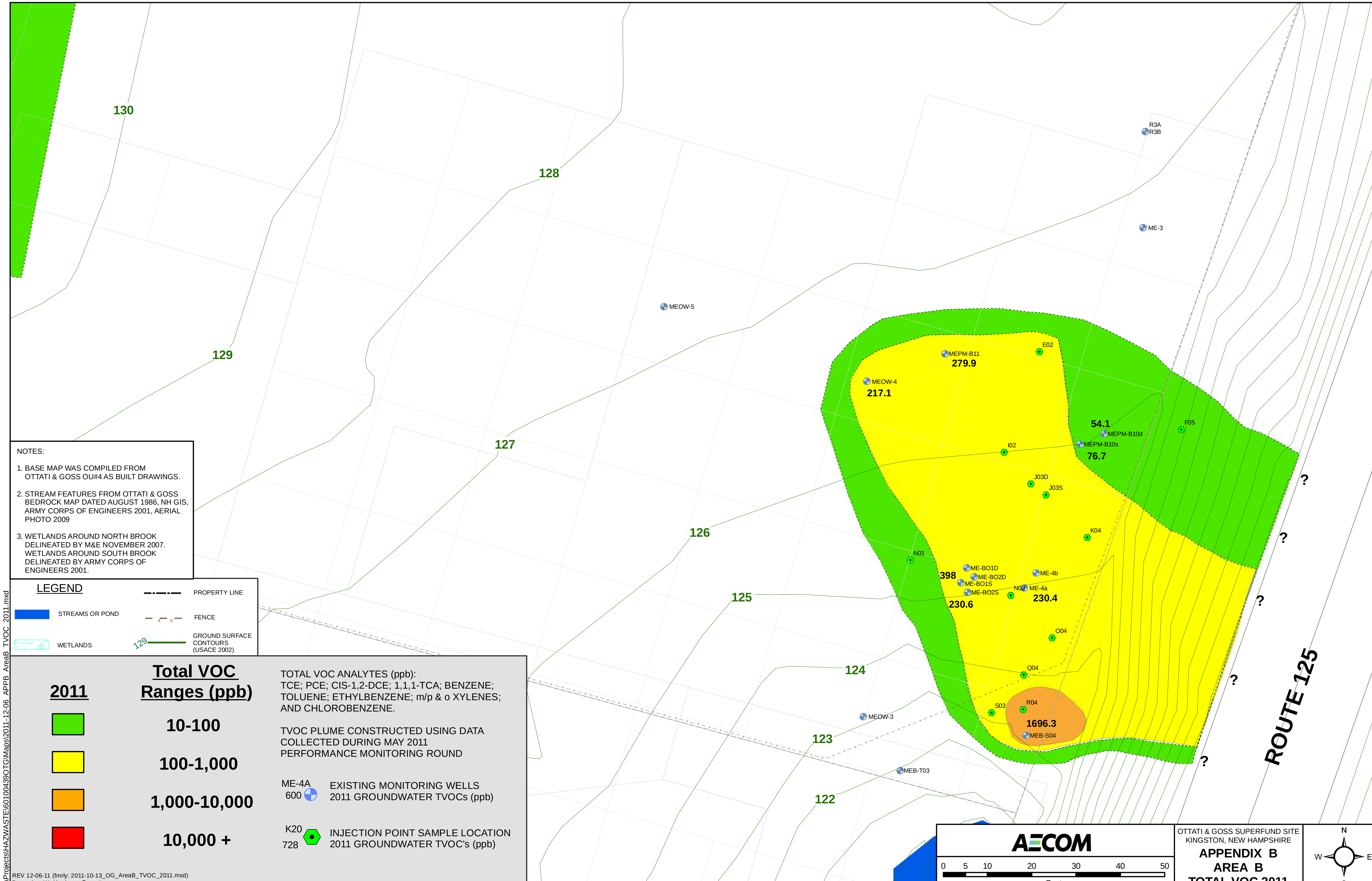
AECOM

0 5 10 20 30 40 50
Feet

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

APPENDIX B
AREA B
TOTAL VOC 2010

N E S W



NOTES:

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.

2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP DATED AUGUST 1986, NH GIS, ARMY CORPS OF ENGINEERS 2001, AERIAL PHOTO 2009

3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORPS OF ENGINEERS 2001.

LEGEND

STREAMS OR POND

WETLANDS

PROPERTY LINE

FENCE

129 GROUND SURFACE CONTOURS (USACE 2002)

2011	Total VOC Ranges (ppb)
(green)	10-100
(yellow)	100-1,000
(orange)	1,000-10,000
(red)	10,000 +

TOTAL VOC ANALYTES (ppb): TCE; PCE; CIS-1,2-DCE; 1,1,1-TCA; BENZENE; TOLUENE; ETHYLBENZENE; m/p & o XYLENES; AND CHLOROBENZENE.

TVOC PLUME CONSTRUCTED USING DATA COLLECTED DURING MAY 2011 PERFORMANCE MONITORING ROUND

ME-4A 600 — EXISTING MONITORING WELLS 2011 GROUNDWATER TVOCs (ppb)

K20 728 — INJECTION POINT SAMPLE LOCATION 2011 GROUNDWATER TVOC's (ppb)

REV 12-06-11 (fmrly: 2011-10-13_OG_AreaB_TVOC_2011.mxd)
Drawn by - W. Abrahams-Dematte

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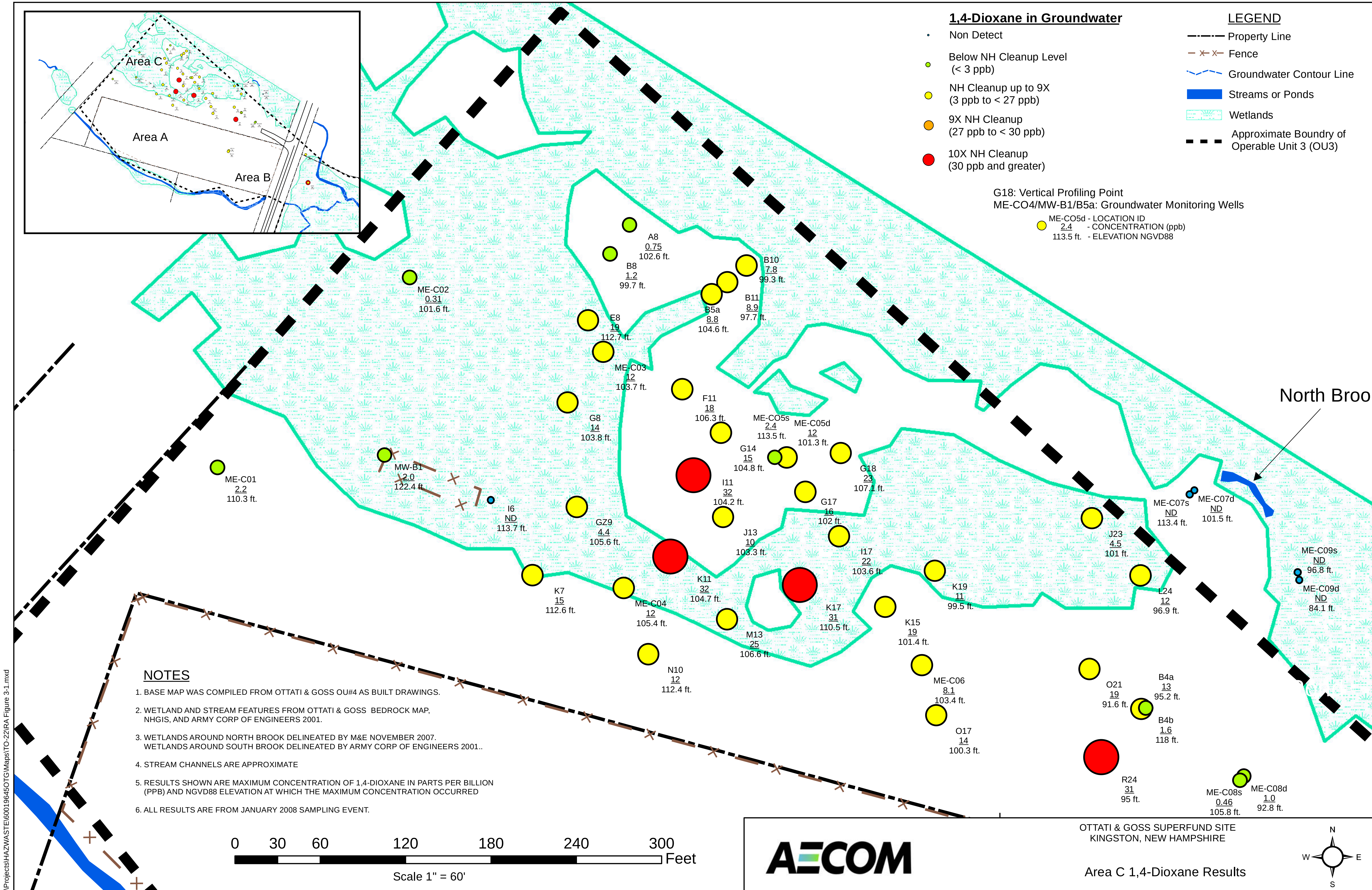
AECOM

0 5 10 20 30 40 50
Feet

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

APPENDIX B
AREA B
TOTAL VOC 2011

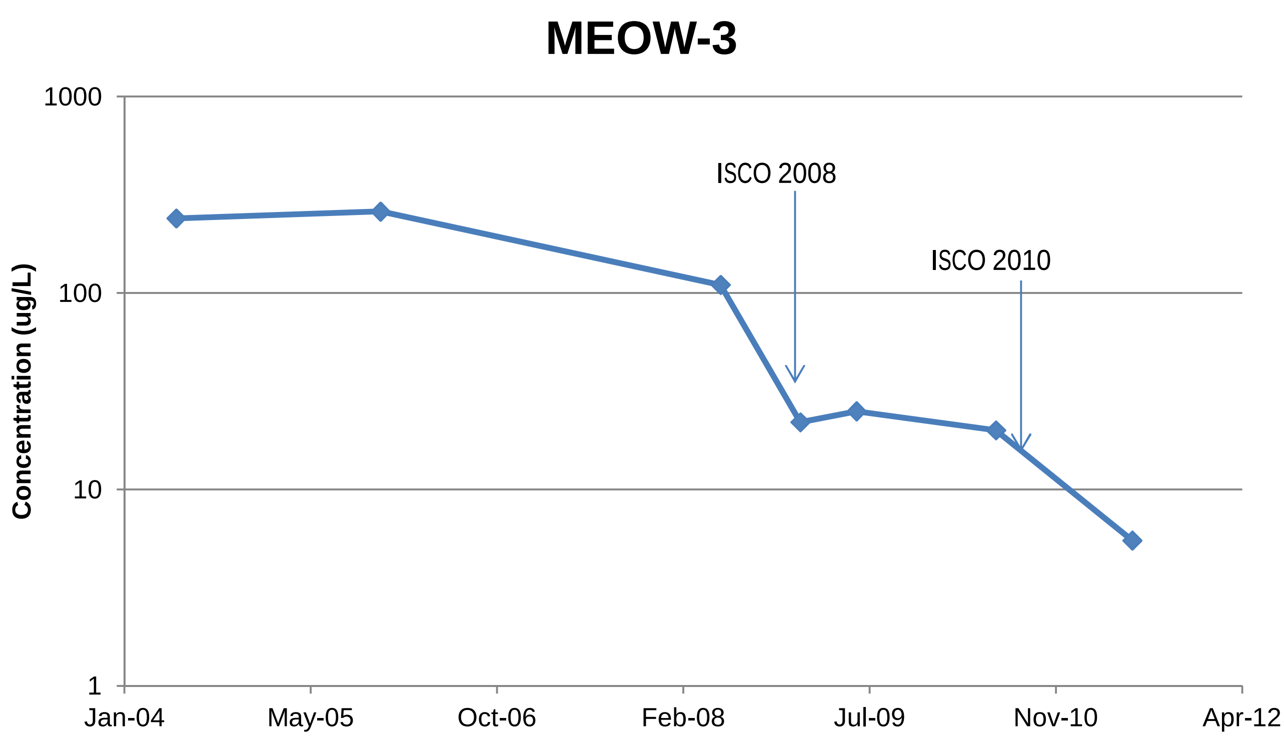
N W E S

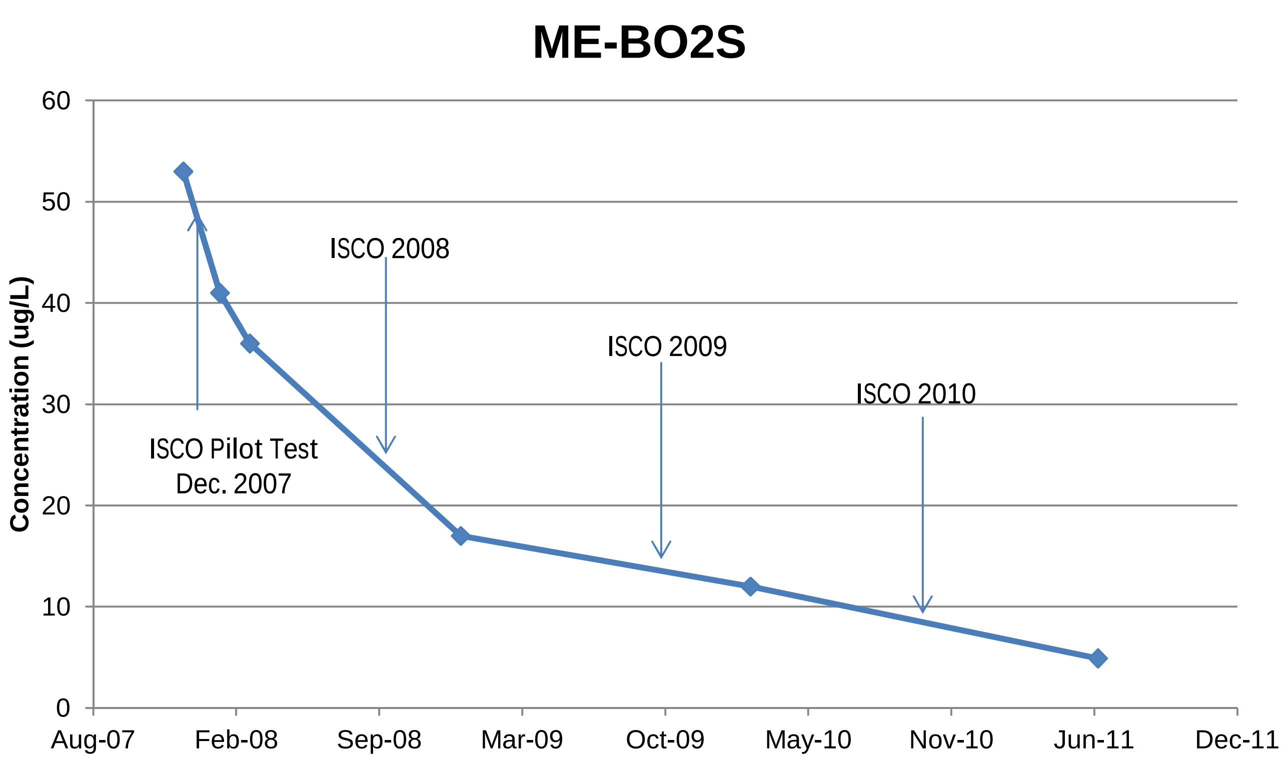


1,4-Dioxane in Groundwater
Non Detect
Below NH Cleanup Level (< 3 ppb)
NH Cleanup up to 9X (3 ppb to < 27 ppb)
9X NH Cleanup (27 ppb to < 30 ppb)
10X NH Cleanup (30 ppb and greater)
G18: Vertical Profiling Point
ME-CO4/MW-B1/B5a: Groundwater Monitoring Wells
ME-CO5d - LOCATION ID
2.4 - CONCENTRATION (ppb)
113.5 ft. - ELEVATION NGVD88
LEGEND
Property Line
Fence
Groundwater Contour Line
Streams or Ponds
Wetlands
Approximate Boundry of Operable Unit 3 (OU3)
Area C
Area A
Area B
North Brook
A8 0.75 102.6 ft.
B8 1.2 99.7 ft.
B10 7.8 99.3 ft.
B11 8.9 97.7 ft.
B5a 8.8 104.6 ft.
ME-C02 0.31 101.6 ft.
E8 19 112.7 ft.
ME-C03 12 103.7 ft.
F11 18 106.3 ft.
G8 14 103.8 ft.
ME-CO5s 2.4 113.5 ft.
ME-C05d 12 101.3 ft.
G14 15 104.8 ft.
G18 23 107.1 ft.
MW-B1 2.0 122.4 ft.
ME-C01 2.2 110.3 ft.
I11 32 104.2 ft.
G17 16 102 ft.
I6 ND 113.7 ft.
GZ9 4.4 105.6 ft.
J13 10 103.3 ft.
I17 22 103.6 ft.
ME-C07s ND 113.4 ft.
ME-C07d ND 101.5 ft.
J23 4.5 101 ft.
ME-C09s ND 96.8 ft.
ME-C09d ND 84.1 ft.
K7 15 112.6 ft.
ME-C04 12 105.4 ft.
K11 32 104.7 ft.
K17 31 110.5 ft.
K19 11 99.5 ft.
L24 12 96.9 ft.
M13 25 106.6 ft.
K15 19 101.4 ft.
N10 12 112.4 ft.
ME-C06 8.1 103.4 ft.
O21 19 91.6 ft.
B4a 13 95.2 ft.
B4b 1.6 118 ft.
O17 14 100.3 ft.
R24 31 95 ft.
ME-C08s 0.46 105.8 ft.
ME-C08d 1.0 92.8 ft.
NOTES
1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. WETLAND AND STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP, NHGIS, AND ARMY CORP OF ENGINEERS 2001.
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E NOVEMBER 2007. WETLANDS AROUND SOUTH BROOK DELINEATED BY ARMY CORP OF ENGINEERS 2001..
4. STREAM CHANNELS ARE APPROXIMATE
5. RESULTS SHOWN ARE MAXIMUM CONCENTRATION OF 1,4-DIOXANE IN PARTS PER BILLION (PPB) AND NGVD88 ELEVATION AT WHICH THE MAXIMUM CONCENTRATION OCCURRED
6. ALL RESULTS ARE FROM JANUARY 2008 SAMPLING EVENT.
0 30 60 120 180 240 300 Feet
Scale 1" = 60'
AECOM
OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE
Area C 1,4-Dioxane Results
N
W
E
S
G:\Projects\HAZWASTE\60019645OTG\Maps\TO-22\RA Figure 3-1.mxd

1,4-Dioxane Temporal Trends
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

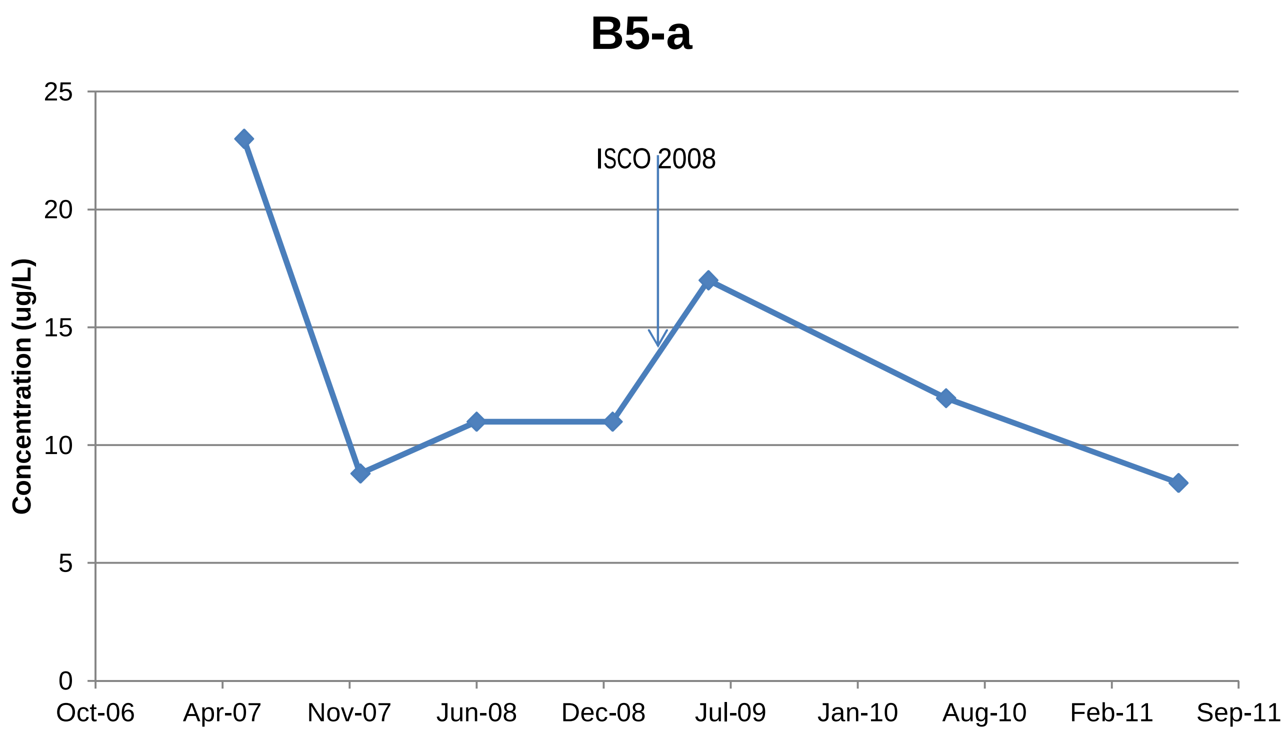
Monitoring Wells Located Within Area B

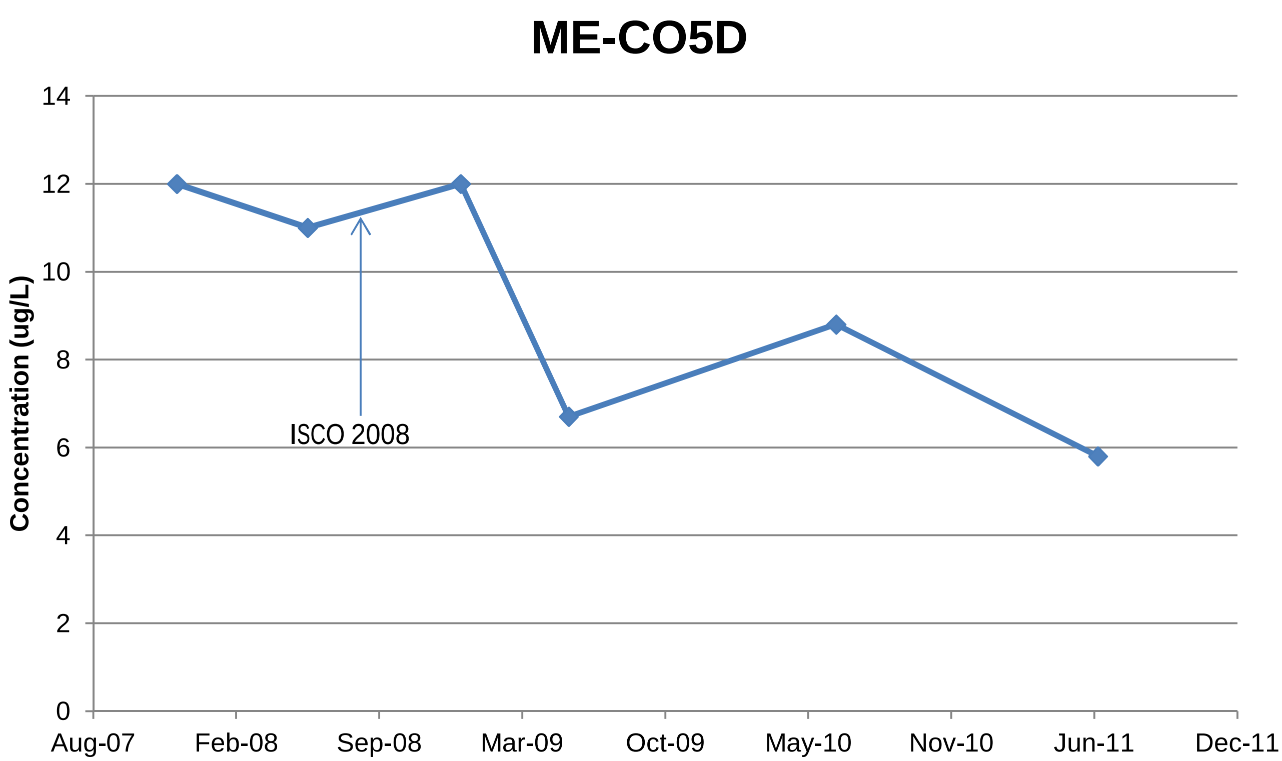




1,4-Dioxane Temporal Trends
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

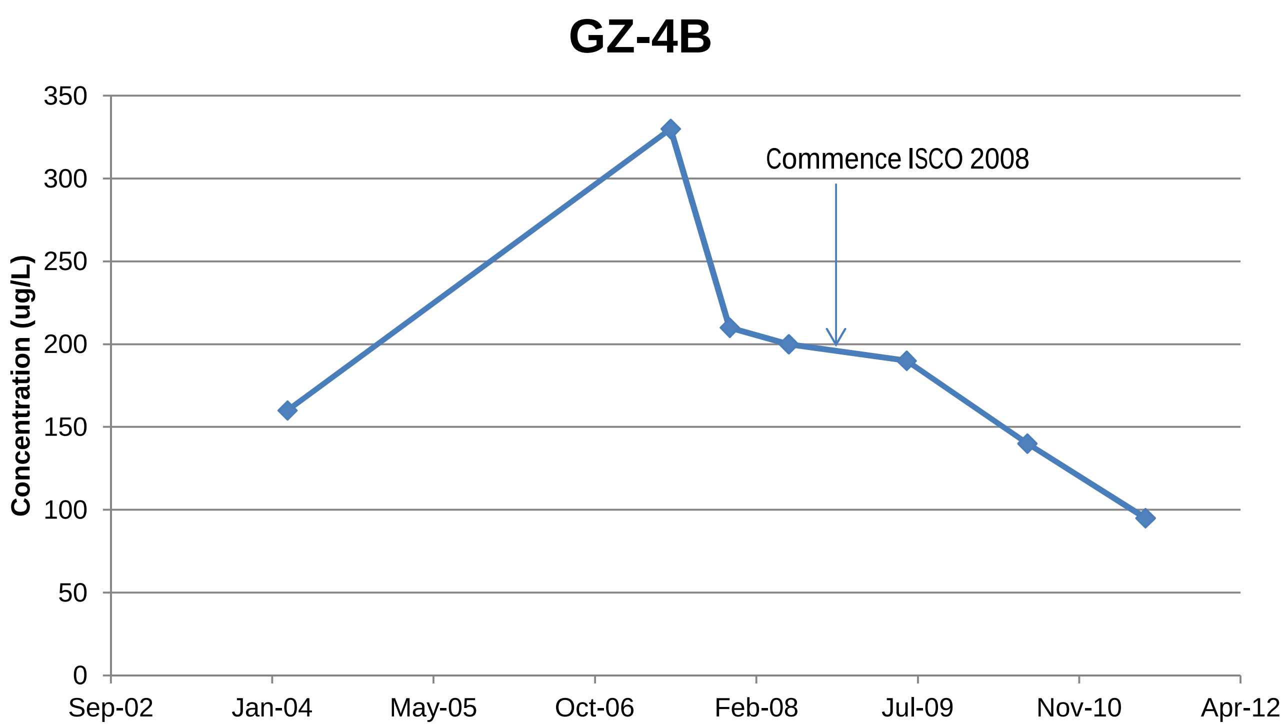
Monitoring Wells Located Within Area C

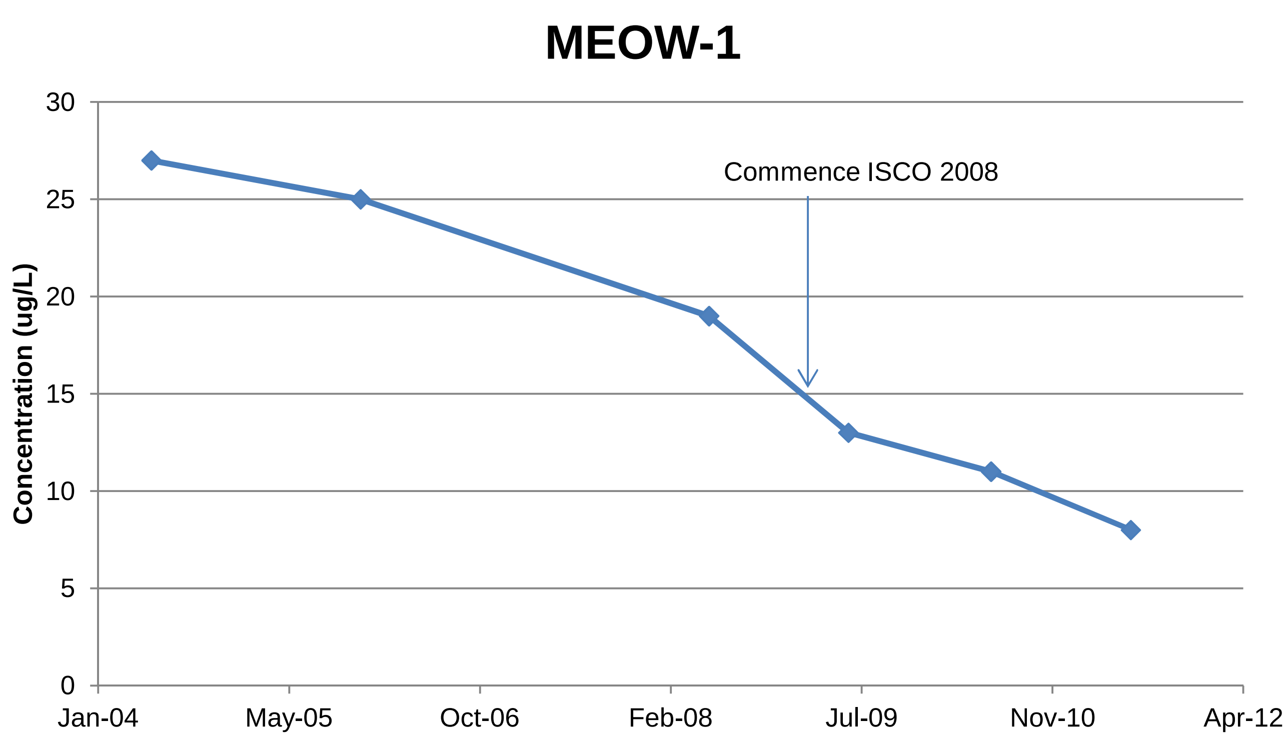




1,4-Dioxane Temporal Trends
Ottati & Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

Monitoring Wells Located East of Route 125 (Downgradient)





Appendix C

USEPA Region 1 OEME Mobile Laboratory Groundwater Results and Comparison

GROUNDWATER PERFORMANCE MONITORING RESULTS - APRIL 2009
OEME MOBILE LABORATORY
OTTATI & GOSS SUPERFUND SITE - KINGSTON, NEW HAMPSHIRE
RESULTS REPORTED IN UG/L

Location	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	Benzene	Toluene	Ethylbenzene	m/p Xylene	o-Xylene	1,1,1-TCA	TVOC
MCL	5	5	70	100	7	5	1000	700	10000	10000	200	(ug/L)
AREA A												
INJA-B01	2.7	**12**	23	<2	<5	2	28	82	78	24	<0.3	252
INJA-F02	**22**	**60**	5.5	<1	<2	<2	27	25	71	18	<1	229
INJA-G00	2.9	**6.8**	<3	<2	<5	<2	5.6	7	20	8	<0.3	50
MEPM-A11	<6	4.5	**710**	<20	<30	<20	145	**1,030**	930	<200	14	2,834
ME-A02S	**37**	**25**	<50	<20	<30	<20	<20	<150	186	<150	<9	248
ME-A02D	1.4	<4.5	**530**	<20	<30	<20	62	320	680	<150	<9	1,593
INJA-A08S	<0.2	0.2	<2	<1	<5	<1	<1	<5	<5	<10	<0.3	0
INJA-A08D	1.7	3.2	**232**	<5	<5	<5	14	400	262	30	0.7	944
INJA-F07S	<0.2	<0.3	<2	<2	<5	<4	<2	<5	<5	<10	<0.3	0
INJA-F07D	**31**	**112**	**113**	<10	<20	<7	156	110	276	50	<10	848
MEPM-A15S	**456**	**52**	70	<30	<30	<30	215	**860**	2,410	630	<9	4,693
MEPM-A15D	**38**	**25**	<30	<30	<30	<20	111	62	198	<150	<9	434
INJA-H14	1.5	**86**	**782**	<3	<5	<5	700	**1,130**	2,800	795	<3	6,295
INJA-H15	**110**	**112**	**1300**	<30	<30	<20	910	**1,600**	5,200	1,900	<9	11,132
MEPM-A13	**17**	**8.3**	**87**	<30	<30	<30	120	103	260	<150	<9	595
MEPM-A13-CS	**14**	**5.2**	**94**	<30	<30	<30	106	103	217	<150	<9	539
MEPM-A16	**6**	**44**	**227**	<20	<30	<20	173	200	186	180	<9	1,016
INJA-F21	**27**	**72**	**295**	<10	<20	<7	786	930	2,560	630	<10	5,300
INJA-I21	**197**	**824**	**470**	<5	<10	<20	**2,200**	**2,020**	5,300	1,800	<2	12,811
INJA-I24	0.9	**15**	44	<3	<5	<5	6.7	8	4	5	<0.3	83
INJA-J22	4.5	**25**	**1530**	<20	<30	<30	790	**930**	2,800	620	<9	6,700
INJA-K20	1.4	**6.8**	**243**	<1	<5	<2	34	245	189	9	<1	728
AREA B												
INJB-B05S	3	4	3.1	<2	<5	<4	3.5	167	248	55	<0.3	484
INJB-B05D	0.2	0.6	<2	<1	<3	<1	<1	<5	<5	<5	<0.3	1
INJB-E02S	<0.2	<0.3	<2	<2	<5	3.6	1.8	<5	<5	<10	<0.3	5
INJB-E02D	**30**	**51**	52	<10	<20	<7	180	72	161	50	<10	596
MEPM-10S (day 1 ice)	**26**	**156**	**290**	<30	<60	<20	950	113	280	116	<10	1,931
MEPM-10D	**5.4**	**7.4**	19	<3	<40	<2	14	12	17	<5	<0.3	75
MEPM-B11	3.1	**9**	14	<30	<5	<2	51	68	150	62	<1	357
INJB-H01	<0.2	<0.3	<2	<2	<5	3	<4	<5	5	<10	<0.3	8
INJB-M04S	<0.2	<0.3	<2	<1	<50	<1	<1	<5	<5	<10	<0.3	0
INJB-M04D	3.7	2.6	30	<5	<60	<5	<2	<5	<5	<10	<0.3	36
ME-BO2D	**54**	**223**	**271**	<30	<30	<20	432	62	124	<150	<9	1,166
ME-BO2D-CS	**67**	**239**	**271**	<30	<30	<20	487	62	155	<150	<9	1,281
INJB-Q02D	3.8	**8.6**	24	<5	<60	<3	55	58	150	50	<0.3	349
INJB-R01	<0.2	<0.3	<2	<2	<5	<2	<2	<5	<5	<10	<0.3	0
INJB-Q04	**42**	**39**	38	<30	<200	<2	22	12	11	8	<0.8	172
INJB-O04S	**7.6**	0.7	8.2	<5	<30	<5	3.5	55	92	18	<1	185
INJB-S04	**39**	**634**	**1500**	<30	<30	<30	**2,000**	**980**	3,000	1,100	<9	9,253
AREA C												
B-5A	3.3	**11**	7.9	<2	<2	<2	<2	<5	<5	<10	<0.3	22
INJC-I13	<0.2	<0.3	<2	<1	<5	<1	<1	<5	<5	<10	<0.3	0
INJC-H14	<0.2	<0.3	<2	<1	<5	<1	<1	<5	<5	<10	<0.3	0
PRESERVATIVE TEST SAMPLES												
MEPM-10S (day 1 ice)	**26**	**156**	**290**	<30	<60	<20	950	113	280	116	<10	1,931
MEPM-10S (day 3 ice)	**24**	**170**	**310**	<20	<80	<20	847	93	248	155	<9	1,847
MEPM-10S (day 1 AA)	**22**	**119**	**206**	<10	<40	<20	650	69	173	73	<0.3	1,312
MEPM-10S (day 3 AA)	**22**	**121**	**204**	<20	<80	<20	486	68	167	90	<9	1,158
MEPM-10S (day 3 HCl)	**21**	**148**	**265**	<20	<80	<20	634	86	186	124	<9	1,464

Notes:
Bolded concentrations exceed the MCL.
Field dup = field duplicate sample (samples with notation "-CS" at end of Sample ID)
TVOC = Sum of all presented analytes

GROUNDWATER PERFORMANCE MONITORING RESULTS - APRIL 2010
OEME MOBILE LABORATORY
OTTATI & GOSS SUPERFUND SITE - KINGSTON, NEW HAMPSHIRE
RESULTS REPORTED IN UG/L

Location	PCE	TCE	cis-1,2-DCE	Benzene	Toluene	Ethylbenzene	m/p-Xylene	o-Xylene	1,1,1-TCA	Chlorobenzene	TVOC
MCL	5	5	70	5	1000	700	10,000 (Total Xylene)		200	100	ppb
Area A											
MEPM-A16	**21**	**18**	**610**	<3	21	340	230	<20	<2	<300	1,240
MEPM-A15S	4.6	**12**	**216**	<3	4	10	20	8	4.0	<5	279
MEPM-A15D	**14**	1.5	15	**8**	<3	<5	6	<10	1.2	<5	46
ME-AO2D	**83**	**46**	**197**	<60	105	136	305	<300	<15	<300	872
MEPM-A17	0.8	**6.2**	45	<3	9	84	6	<10	<3	<5	151
MEPM-A13	**5.5**	**12**	58	<8	15	222	250	35	<2	<15	598
MEPM-A12	3.4	**16**	**111**	<3	<3	13	<5	<10	<1	<5	143
INJA-F99	0.5	1.5	<3	<0.4	<2	<5	<5	<10	<0.4	<5	2
INJA-E98-RS	<0.2	3.2	<3	<0.4	<2	<5	<5	<10	<0.4	<5	3
INJA-E98	<0.2	2.8	<3	<0.4	<2	<5	<5	<10	<0.4	<5	3
INJA-F08	**7.3**	**7.9**	64	<3	<5	19	18	4	<0.5	<5	120
INJA-H17	**9.7**	**6.8**	**346**	<15	<60	197	248	<160	<12	<150	808
INJA-L22	0.7	3.6	41	<0.5	<2	11	5.5	<5	<0.5	<5	62
INJA-I13	**27**	**57**	**920**	<15	114	590	620	12	<12	<150	2,340
INJA-F21	**8.6**	**25**	**105**	<15	155	250	680	250	<12	<150	1,474
INJA-H14	**6.9**	4.8	**145**	<15	<50	225	120	<150	<12	<150	502
INJA-D15	**17**	**28**	**82**	<15	<50	280	370	<150	<12	<150	777
INJA-A05	<3	1.0	<30	<15	<50	510	90	<150	<12	<150	601
INJA-J22	4.4	**14**	**730**	<15	<20	**1,500**	4,800	<150	<12	<150	7,048
INJA-F05S	1.4	0.7	<3	<0.4	<2	<5	<5	<10	<0.4	<5	2
MEPM-A15D	**26**	3.1	<90	<20	<50	<150	<150	<300	<12	<150	29
INJA-I21	**105**	**9.1**	**220**	<15	114	**1,350**	4,600	780	<0.4	<150	7,178
Area B											
INJB-S03S	0.2	2.8	15	<3	<2	67	39	16	<1	97	237
INJB-S03S-RS	0.2	4.0	22	<3	<2	120	81	22	<1	**111**	360
INJB-K04D	**88**	**162**	**305**	<60	736	305	686	244	<20	<300	2,526
INJB-K04S	**26**	21	**148**	<5	19	48	62	20	<15	<5	344
MEPM-B11	0.5	4.8	11	<3	6	29	16	10	<1	<5	77
MEPM-B10S	**28**	**57**	**90**	<50	<100	<300	<300	<300	<15	<300	175
INJB-R04D	**21**	**57**	52	<20	260	**1,780**	2,830	550	<0.5	**300**	5,850
INJB-R04S	0.6	**6.3**	8	<5	3.6	**800**	670	500	<0.5	**280**	2,269
INJB-N01S	<0.2	<0.2	<3	<3	<2	<5	<5	<5	<0.4	41	41
INJB-N01D	3.3	**7.1**	10	<3	32	7.0	15	8	<0.5	<5	82
INJB-E02D	1.7	**11**	36	<3	19	66	24	10	<1	<5	168
INJB-Q04	7.1	**8.3**	**75**	<10	37	280	138	<300	<0.5	**200**	745
INJB-O04D	**12**	**88**	**77**	<10	110	7	<5	<5	<0.5	6.2	300
INJB-F05S	2.0	5.0	**92**	<5	7.7	52	37	8	<0.5	5.8	210
INJB-F05D	**24**	**5.1**	40	<30	23	16	60	14	<0.5	<5	182
INJB-N03D	**82**	**86**	**111**	<20	185	100	210	100	<0.5	<300	874
Area C											
INJC-I15S	<0.2	<0.2	<3	<0.4	<2	<5	<5	<10	<0.4	<5	0
MEPM-C10	0.4	0.9	<3	<0.4	<2	<5	<5	<10	<0.4	<5	1
INJC-H14	<0.2	<0.2	<3	<0.4	<2	<5	<5	<10	<0.4	<5	0

Notes:
Bolded concentrations exceed the MCL.
Field dup = field duplicate sample (samples with notation "-RS" at end of Sample ID)
TVOC = Sum of all presented analytes

PERFORMANCE MONITORING RESULTS - GROUNDWATER COMPARISON 2009 vs. 2010

OTTATI & GOSS SUPERFUND SITE - KINGSTON, NEW HAMPSHIRE

Location Concentrations in ug/L **Area A**	ICL	**PCE** 5	**TCE** 5	**cis-1,2-DCE** 70	**Benzene** 5	**Toluene** 1000	**Ethylbenzene** 700	**m/p-Xylene** Total Xylene = 10,000	**o-Xylene**	**Total VOC**
MEPM-A10	Jan-09	**120**	**68**	23	0.8	220	320	1,100	280	2,132
	Feb-10	**8.8**	**5.9**	2.5	0.54	7.9	10	24	9.3	69
	Δ (2009-2010)	111	62	21	0	212	310	1,076	271	2,063
	% Reduction	93%	91%	89%	33%	96%	97%	98%	97%	97%
MEPM-A11	Apr-09	<6	4.5	**710**	<20	145	**1,030**	930	<200	2,820
	Feb-10	2.8	**11**	**140**	**16**	29	620	330	9.1	1,158
	Δ (2009-2010)	--	-7	570	--	116	410	600	--	1,662
	% Reduction	--	-144%	80%	--	80%	40%	65%	--	59%
MEPM-A14	Jan-09	**8.5**	**160**	61	0.98	84	160	480	150	1,104
	Feb-10	**22**	**25**	**290**	**5.1**	13	360	220	6	942
	Δ (2009-2010)	-14	135	-229	-4	71	-200	260	144	163
	% Reduction	-159%	84%	-375%	-420%	85%	-125%	54%	--	15%
MEPM-A14 (unvalidated)	Jun-10	**8.6**	**27**	**410**	<20	21	260	37	<20	764
MEPM-A15S	Jan-09	**390**	**110**	43	0.73	240	610	2,300	590	4,284
	Apr-10	**11**	**19**	**200**	<170	5.6	12	26	10	284
	Δ (2009-2010)	379	91	-157	--	234	598	2,274	580	4,000
	% Reduction	97%	83%	-365%	--	98%	98%	99%	98%	93%
MEPM-A15S (unvalidated)	Jun-10	**34**	**120**	**1,200**	**7.1**	15	12	4.2	7.1	1,399
MEPM-A16	Apr-09 (ML)	**6**	**44**	**227**	<20	173	200	186	180	1,016
	Apr-10 (ML)	**21**	**18**	**610**	<3	21	340	230	<20	1,240
	Δ (2009-2010)	-15	26	-383	--	152	-140	-44	>160	-224
	% Reduction	-250%	59%	-169%	--	88%	-70%	-24%	>89%	-22%
MEPM-A17	Jan-09	<5	1.4	10	<5	14	11	29	8	73
	Apr-10	<5	**11**	37	2.1	8	73	10	2	143
	Δ (2009-2010)	--	-10	-27	--	6	-62	20	6	-70
	% Reduction	--	-686%	-270%	--	41%	-564%	67%	73%	-95%
MEPM-A18	Jan-09	**5.3**	**75**	**170**	<5	310	170	420	160	1,310
	Feb-10	<5	0.71	8.4	0.53	<5	<5	<5	<5	10
	Δ (2009-2010)	--	74	162	--	--	--	--	--	1,301
	% Reduction	--	99%	95%	--	--	--	--	--	99%

PERFORMANCE MONITORING RESULTS - GROUNDWATER COMPARISON 2009 vs. 2010

OTTATI & GOSS SUPERFUND SITE - KINGSTON, NEW HAMPSHIRE

Location		**PCE**	**TCE**	**cis-1,2-DCE**	**Benzene**	**Toluene**	**Ethylbenzene**	**m/p-Xylene**	**o-Xylene**	**Total VOC**
Concentrations in ug/L	ICL	5	5	70	5	1000	700	Total Xylene = 10,000		
Area A										
INJA-H14	Apr-09 (ML)	1.5	**86**	**782**	<5	700	**1,130**	2,800	795	6,295
	Apr-10 (ML)	**6.9**	4.8	**145**	<15	<50	225	120	<150	502
	Δ (2009-2010)	-5	81	637	--	>650	905	2,680	>645	5,793
	% Reduction	-360%	94%	81%	--	>93%	80%	96%	>81%	92%
INJA-H15	Apr-09 (ML)	**110**	**112**	**1,300**	<20	910	**1,600**	5,200	1,900	11,132
	Feb-10	**9.2**	4.6	**82**	**5.2**	7.8	180	100	7.1	396
	Δ (2009-2010)	101	107	1,218	--	>650	1,420	5,100	>645	10,736
	% Reduction	92%	96%	94%	--	>93%	89%	98%	>81%	96%
INJA-F21	Apr-09 (ML)	**27**	**72**	**295**	<7	786	**930**	2,560	630	5,300
	Apr-10 (ML)	**8.6**	**25**	**105**	<15	155	250	680	250	1,474
	Δ (2009-2010)	18	47	190	--	631	680	1,880	>645	3,826
	% Reduction	68%	65%	64%	--	80%	73%	73%	>81%	72%
INJA-J22	Apr-09 (ML)	4.5	**25**	**1,530**	<30	790	**930**	2,800	620	6,700
	Apr-10 (ML)	4.4	**14**	**730**	<15	<20	**1,500**	4,800	<150	7,048
	Δ (2009-2010)	0	11	800	--	>770	-570	-2,000	>645	-349
	% Reduction	2%	44%	52%	--	>97%	-61%	-71%	>81%	-5%
INJA-I21	Apr-09 (ML)	**197**	**824**	**470**	<20	**2,200**	**2,020**	5,300	1,800	12,811
	Feb-10	**64**	**43**	57	<250	120	130	190	75	679
	Apr-10 (ML)	**105**	**9.1**	**220**	<15	114	**1,350**	4,600	780	7,178
	Δ (Apr 2009- Apr 2010)	92	815	250	--	2,086	670	700	1,020	5,633
	% Reduction	47%	99%	53%		95%	33%	13%	57%	44%
Area A - Wells Not Within 2009 Injection Area										
ME-A02D	Apr-09	1.4	<4.5	**530**	<20	62	320	680	<150	1,593
	Apr-10	**83**	**46**	**197**	<60	105	136	305	<300	872
	Δ (2009-2010)	-82	~ -41.5	333	--	-43	184	375	--	721
	% Reduction	-5829%	--	63%	--	-69%	58%	55%	--	45%
MEPM-A12	Jan-09	**37**	**26**	23	0.85	15	24	36	11	173
	Apr-10	4.4	**22**	**120**	<5	1	14	2.7	4.6	169
	Δ (2009-2010)	33	4	-97	--	14	10	33	6	4
	% Reduction	88%	15%	-422%	--	93%	42%	93%	58%	2%

PERFORMANCE MONITORING RESULTS - GROUNDWATER COMPARISON 2009 vs. 2010

OTTATI & GOSS SUPERFUND SITE - KINGSTON, NEW HAMPSHIRE

Location		**PCE**	**TCE**	**cis-1,2-DCE**	**Benzene**	**Toluene**	**Ethylbenzene**	**m/p-Xylene**	**o-Xylene**	**Total VOC**
Concentrations in ug/L	ICL	5	5	70	5	1000	700	Total Xylene = 10,000		
Area A - Wells Not Within 2009 Injection Area										
MEPM-A13	Apr-09 (ML)	**17**	**8.3**	**87**	<30	120	103	260	<150	595
	Apr-10 (ML)	**5.5**	**12**	58	<8	15	222	250	35	598
	Δ (2009-2010)	12	-4	29	--	105	-119	10	--	-2
	% Reduction	68%	-45%	33%	--	88%	-116%	4%	--	0%
MEPM-A16	Jan-09	**2.2**	**26**	43	<5	180	150	270	2	673
	Apr-10	**33**	**31**	**630**	**<36**	23	410	250	<36	1,377
	Δ (2009-2010)	-31	-5	-587	--	157	-260	20	--	-704
	% Reduction	-1400%	-19%	-1365%	--	87%	-173%	7%	--	-104%
Area B										
ME-BO2S	Jan-09	4.5	**140**	42	3.4	59	140	260	40	689
	Feb-10	**47**	**160**	45	3.2	110	150	320	110	945
	Δ (2009-2010)	-43	-20	-3	0	-51	-10	-60	-70	-256
	% Reduction	-944%	-14%	-7%	6%	-86%	-7%	-23%	-175%	-37%
ME-BO2D	Apr-09 (ML)	**67**	**239**	**271**	<20	487	62	155	<150	1,281
	Feb-10	**38**	**7.7**	25	2.6	14	16	17	4.6	125
	Δ (2009-2010)	29	231	246	--	473	46	138	--	1,156
	% Reduction	43%	97%	91%	--	97%	74%	89%	--	90%
MEPM-B10S	Apr-09 (ML)	**26**	**156**	**290**	<20	950	113	280	116	1,931
	Apr-10 (ML)	**28**	**57**	**90**	<50	<100	<300	<300	<300	175
	Δ (2009-2010)	-2	99	200	--	>850	--	--	--	1,756
	% Reduction	-8%	63%	69%	--	>90%	--	--	--	91%
MEPM-B10D	Apr-09	3.5	**5.9**	17	0.91	13	5.8	11	2	59
	Feb-10	**19**	**36**	3.9	1.2	1.4	1.5	<5	<5	63
	Δ (2009-2010)	-16	-30	13	--	>850	--	--	--	-4
	% Reduction	-443%	-510%	77%	--	>90%	--	--	--	-7%
MEPM-B10D (unvalidated)	Jun-10	**33**	**110**	56	<25	440	100	370	94	1,203
INJB-E02D	Apr-09 (ML)	**30**	**51**	52	<7	180	72	161	50	596
	Apr-10 (ML)	1.7	**11**	36	<3	19	66	24	10	168
	Δ (2009-2010)	28	40	16	--	161	6	137	40	428
	% Reduction	94%	78%	31%	--	89%	8%	85%	80%	72%

PERFORMANCE MONITORING RESULTS - GROUNDWATER COMPARISON 2009 vs. 2010

OTTATI & GOSS SUPERFUND SITE - KINGSTON, NEW HAMPSHIRE

Location		**PCE**	**TCE**	**cis-1,2-DCE**	**Benzene**	**Toluene**	**Ethylbenzene**	**m/p-Xylene**	**o-Xylene**	**Total VOC**
Concentrations in ug/L	ICL	5	5	70	5	1000	700	Total Xylene = 10,000		
Area B										
INJB-Q04	Apr-09	**42**	**39**	38	<2	22	12	11	8	172
	Apr-10	**7.1**	**8.3**	**75**	<10	37	280	138	<300	545
	Δ (2009-2010)	35	31	-37	--	-15	-268	-127	--	-373
	% Reduction	83%	79%	-97%	--	-68%	-2233%	-1155%	--	-217%
INJB-S04	Apr-09 (ML)	**39**	**634**	**1,500**	<30	**2,000**	**980**	3,000	1,100	9,253
(Area B-13)	Feb-10	**37**	**200**	**380**	**10**	**1,200**	**830**	1,700	760	5,117
	Δ (2009-2010)	2	434	1,120	--	800	150	1300	340	4,136
	% Reduction	5%	68%	75%	--	40%	15%	43%	31%	45%
Area B - Wells Not Within 2009 Injection Area										
MEPM-B11	Apr-09	3.1	**9.0**	14	<2	51	68	150	62	357
	Apr-10	0.5	4.8	11	<3	6	29	16	10	77
	Δ (2009-2010)	3	4	3	--	45	39	134	52	280
	% Reduction	84%	47%	21%	--	88%	57%	89%	84%	78%

Notes:

-All results shown from RAS laboratory, unless indicated ML (mobile laboratory)

-Whenever data is available, matching analytical methods compared (2009 RAS to 2010 RAS or 2009 Mobile Lab to 2010 Mobile Lab)

-Total VOC value on this table is a summation of compounds listed in this table: PCE, TCE, 1,2-cis-DCE, benzene, toluene, ethylbenzene, m/p-xylene, and o-xylene.
The mobile laboratory also analyzed for 1,1,1-TCA (2009&2010) and chlorobenzene (2010 only), but were generally not detected or detected at low concentrations.

-Shaded well names indicate injection wells or nearest monitoring well where peroxide was added in Area A in 2009.

-**BOLD** values indicate exceedance of ICL (Interim Cleanup Level)

-Concentrations denoted with J flags, accepted as value

Appendix D

USEPA Region 1 OEME Mobile Laboratory Soil Results and Comparison

OEME MOBILE LABORATORY VOC AND FIXED LABORATORY TOC RESULTS, MARCH-APRIL 2007 VERTICAL PROFILING EFFORT
OTTATI & GOSS SUPERFUND SITE
SOIL SAMPLES FROM DIRECT-PUSH RIG

Location	Date	TOC	Notes	Mobile Laboratory Results, ug/kg wet weight (ppb)										Total Chlor	Total BTEX	Total VOCs	Total VOCs
		Concn (ppb)		TCE	PCE	cis-1,2-DCE	Benzene	Toluene	trans-1,2-DCE	Ethylbenzene	m/p xylene	o-xylene	1,1,1-TCA	(ppb)	(ppb)	(ppb)	(ppm)
	NHDES Method 1 S-2 Soil (ug/kg)			800	2000	2000	300	100000	9000	140000	1.E+06	1000000	78000				
AREA B SOIL																	
B-SO-0B-4-8	3/23/2007	4400												0	0	0	0
B-SO-0B-12-16	3/23/2007	400												0	0	0	0
B-SO-0B-16-19YY	3/23/2007	320	field dup											0	0	0	0
B-SO-0B-16-19	3/23/2007	350												0	0	0	0
B-SO-0B-4.5	3/23/2007			<18	<12	<120	<60	<180	<120	<300	<300	<600	<12	0	0	0	0
B-SO-0B-10.0	3/23/2007			<18	<12	<120	<60	<180	<120	<300	<300	<600	<12	0	0	0	0
B-SO-0B-15.5	3/23/2007			<18	<12	<120	<60	<180	<120	<300	<300	<600	<12	0	0	0	0
B-SO-0B-18.5	3/23/2007			<18	<12	<120	<60	<180	<120	<300	<300	<600	<12	0	0	0	0
B-SO-0C-5.0	3/23/2007			<18	<12	<120	<60	143	<120	308	770	<600	<12	0	1221	1,221	1.2
B-SO-0C-5.0YY	3/23/2007		field dup	<18	<12	<120	<60	132	<120	298	531	<600	<12	0	961	961	1.0
B-SO-0C-10.0	3/23/2007			<18	<12	<120	<60	<180	<120	<300	<300	<600	<12	0	0	0	0
B-SO-0C-14.5	3/23/2007			<18	<12	<120	<60	<180	<120	<300	<300	<600	<12	0	0	0	0
B-SO-0C-17.9	3/23/2007			<18	<12	<120	<60	<180	<120	<300	<300	<600	<12	0	0	0	0
B-SO-0C-20.8	3/23/2007			<18	<12	<120	<60	<180	<120	<300	<300	<600	<12	0	0	0	0
B-SO-1A-5.7	3/27/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1A-10.5	3/27/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1A-13.5	3/27/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1A-19.0	3/27/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1B-6.0	3/29/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1B-8.5	3/29/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1C-5.5	3/30/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1C-8.7	3/30/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1C-8.7YY	3/30/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1C-14.4	3/30/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1C-18.7	3/30/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1D-5.4	3/29/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1D-11.5	3/29/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1D-14.0	3/29/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1D-17.3	3/29/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1D-5.5-7.3	3/29/2007	560												0	0	0	0
B-SO-1D-12-14	3/29/2007	450												0	0	0	0
B-SO-1D-16-17.5	3/29/2007	310												0	0	0	0
B-SO-1F-6.5	3/28/2007			36	25	<120	<300	1770	<200	2110	9540	2220	<24	61	15640	15,701	15.7
B-SO-1F-9.5	3/28/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1F-14.0	3/29/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1F-17.5	3/29/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-1F-14-16	3/29/2007	320												0	0	0	0
BO-SO-2B-6.6	3/23/2007			<30	21	<180	<240	<350	<240	<600	720	<1200	<24	21	720	741	0.7
BO-SO-2B-9.5	3/23/2007			<30	<12	<180	<240	<350	<240	<600	<600	<1200	<24	0	0	0	0
BO-SO-2B-14.7	3/23/2007			<30	<12	<180	<240	<350	<240	<600	<600	<1200	<24	0	0	0	0
BO-SO-2B-19.6	3/23/2007			<30	<12	<180	<240	<350	<240	<600	<600	<1200	<24	0	0	0	0
BO-SO-2B-22.5	3/23/2007			<30	<12	<180	<240	<350	<240	<600	<600	<1200	<24	0	0	0	0

OEME MOBILE LABORATORY VOC AND FIXED LABORATORY TOC RESULTS, MARCH-APRIL 2007 VERTICAL PROFILING EFFORT
OTTATI & GOSS SUPERFUND SITE
SOIL SAMPLES FROM DIRECT-PUSH RIG

Location	Date	TOC	Notes	Mobile Laboratory Results, ug/kg wet weight (ppb)										Total Chlor	Total BTEX	Total VOCs	Total VOCs
		Concn (ppb)		TCE	PCE	cis-1,2-DCE	Benzene	Toluene	trans-1,2-DCE	Ethylbenzene	m/p xylene	o-xylene	1,1,1-TCA	(ppb)	(ppb)	(ppb)	(ppm)
B-SO-2C-6.4	4/2/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-2C-10.0	4/2/2007			<24	<24	<120	<200	<200	<200	<600	607	<1200	<24	0	607	607	0.6
B-SO-2C-13.0	4/2/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-2D-5.6	3/30/2007			<24	13	<120	<300	296	<200	1660	7100	887	<24	13	9943	9,956	10.0
B-SO-2D-8.3	3/30/2007			<24	<24	<120	<300	352	<200	1260	5780	1890	<24	0	9282	9,282	9.3
B-SO-2D-9.3	3/30/2007			199	1010	<250	<800	5380	<200	2160	11000	2600	<24	1209	21140	22,349	22.3
B-SO-2D-12.8	3/30/2007			<24	<24	<120	<200	210	<200	<600	733	<1200	<24	0	943	943	0.9
B-SO-2D-17.0	3/30/2007			<24	80	<180	<200	254	<200	<600	496	<1200	<24	80	750	830	0.8
BO-SO-2F-6.0-7.5	3/26/2007	2100												0	0	0	0
BO-SO-2F-13.5-16.0	3/26/2007	1100												0	0	0	0
BO-SO-2F-18.0-19.5	3/26/2007	1700												0	0	0	0
BO-SO-2F-6.0	3/26/2007			<40	<20	<500	<400	819	<500	<1500	1300	<3000	<60	0	2119	2,119	2.1
BO-SO-2F-8.4	3/26/2007			<40	<20	<500	<400	2070	<500	5480	15100	3310	<60	0	25960	25,960	26.0
BO-SO-2F-11.0	3/26/2007			535	**4580**	<500	<400	6060	<500	9850	38300	7660	<60	5115	61870	66,985	67.0
BO-SO-2F-15.4	3/26/2007			**1660**	810	990	<400	5220	<500	3240	9600	2750	<60	3460	20810	24,270	24.3
BO-SO-2F-19.3	3/26/2007			**920**	**4790**	340	<400	4660	<500	2400	10700	1990	<60	6050	19750	25,800	25.8
B-S0-3A-5.8	3/27/2007			<18	<8	<120	<60	<120	<120	<300	<300	<600	<24	0	0	0	0
B-SO-3A-10.0	3/27/2007			<18	<8	<120	<60	<120	<120	<300	<300	<600	<24	0	0	0	0
B-SO-3A-14.3	3/27/2007			<18	83	<120	<60	<120	<120	<300	439	<600	<24	83	439	522	0.5
B-SO-3A-15.0	3/27/2007			<18	<8	<120	<60	<120	<120	<300	<300	<600	<24	0	0	0	0
B-SO-3B-9.8	4/2/2007			<24	20	<120	<200	<800	<200	<600	<600	<1500	<24	20	0	20	0.0
B-SO-3B-12.7	4/2/2007			115	1030	<120	<200	<800	<200	800	3070	1600	<24	1145	5470	6,615	6.6
B-SO-3B-14.5	4/2/2007			99	323	<120	<200	<800	<200	477	1530	<1200	<24	422	2007	2,429	2.4
B-SO-3B-19.0	4/2/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-3C-9.0-11.0	3/27/2007	1100												0	0	0	0
B-SO-3C-15.0-17.5	3/27/2007	660												0	0	0	0
B-SO-3C-21.0-23.0	3/27/2007	330												0	0	0	0
B-SO-3C-6.5	3/27/2007			<24	<12	<240	<120	<240	<240	625	1940	<1200	<30	0	2565	2,565	2.6
B-SO-3C-8.5	3/27/2007			<24	<12	<240	<120	<240	<240	1480	3940	<1200	<30	0	5420	5,420	5.4
B-SO-3C-8.5YY	3/27/2007			<24	<12	<240	<120	<240	<240	1930	4830	<1200	<30	0	6760	6,760	6.8
B-SO-3C-14.5	3/27/2007			422	522	908	<150	913	<300	290	1030	<1500	<40	1852	2233	4,085	4.1
B-SO-3C-19.0	3/27/2007			210	**2720**	149	<150	1180	<300	1200	4200	1260	<40	3079	7840	10,919	10.9
B-SO-3C-22.4	3/27/2007			<30	<15	<150	<150	<300	<300	<600	<600	<1500	<40	0	0	0	0
B-SO-3D-10.0	3/29/2007			<24	<24	<120	<200	<400	<200	<600	766	<1200	<24	0	766	766	0.8
B-SO-3D-12-14	3/29/2007	1200															
B-SO-3D-15.0	3/29/2007			206	366	574	<200	919	<200	<600	781	<1200	<24	1146	1700	2,846	2.8
B-SO-3D-16.5	3/29/2007			577	**2420**	398	<200	3150	<200	755	2760	890	<24	3395	7555	10,950	11.0
B-SO-3D-12-14	3/29/2007													0	0	0	0
B-SO-3E-6.4	4/2/2007			<48	<48	<400	<600	<1200	<400	4200	15100	2900	<24	0	22200	22,200	22.2
B-SO-3E-10.6	4/2/2007			445	845	258	<300	2360	<300	2200	7700	3010	<24	1548	15270	16,818	16.8
B-SO-3E-13.0	4/2/2007			739	643	784	<300	3500	<300	2780	9200	3050	<24	2166	18530	20,696	20.7
B-SO-3E-16.0	4/2/2007			330	692	485	<300	2600	<200	2830	10200	2900	<24	1507	18530	20,037	20.0
B-SO-3E-18.2	4/2/2007			104	390	324	<300	1180	<200	811	2190	<1200	<24	818	4181	4,999	5.0

OEME MOBILE LABORATORY VOC AND FIXED LABORATORY TOC RESULTS, MARCH-APRIL 2007 VERTICAL PROFILING EFFORT
OTTATI & GOSS SUPERFUND SITE
SOIL SAMPLES FROM DIRECT-PUSH RIG

Location	Date	TOC Concn (ppb)	Notes	Mobile Laboratory Results, ug/kg wet weight (ppb)										Total Chlor (ppb)	Total BTEX (ppb)	Total VOCs (ppb)	Total VOCs (ppm)
				TCE	PCE	cis-1,2-DCE	Benzene	Toluene	trans-1,2-DCE	Ethylbenzene	m/p xylene	o-xylene	1,1,1-TCA				
B-SO-3F-5.5	3/26/2007			<40	<12	<240	<280	480	<280	12800	55000	8600	<30	0	76880	76,880	76.9
B-SO-3F-10.8	3/26/2007			379	1740	565	<300	4360	<300	3350	15100	2910	<30	2684	25720	28,404	28.4
B-SO-3F-15.1	3/26/2007			398	464	389	<300	1980	<280	884	3540	940	<30	1251	7344	8,595	8.6
B-SO-3F-20.0	3/26/2007			399	396	530	<300	2700	<280	1520	6940	1600	<30	1325	12760	14,085	14.1
B-SO-4A-6.0	3/28/2007			<24	<24	<240	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-4A-12.2	3/28/2007			<24	<24	<240	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-4A-19.0	3/28/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-4A-12.0-14.2	3/28/2007	720												0	0	0	0
B-SO-4B-10.5	3/28/2007			<24	<24	<240	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-4B-13.0	3/28/2007			<24	<24	<240	<120	<700	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-4C-6.5	3/28/2007			<24	<24	<240	<150	<200	<200	569	<600	<1200	<24	0	569	569	0.6
B-SO-4C-8.5	3/28/2007			<24	<24	<240	<150	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-4C-12.5	3/28/2007			<24	200	<240	<150	408	<200	697	1800	<1200	<24	200	2905	3,105	3.1
B-SO-4C-17.0	3/28/2007			<24	90	<240	<150	<200	<200	<600	<600	<1200	<24	90	0	90	0.1
B-SO-4D-8.8	3/28/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-4D-14.5	3/28/2007			174	244	250	<120	868	<200	<600	812	<1200	<24	668	1680	2,348	2.3
B-SO-4D-16.5	3/28/2007			195	612	153	<120	696	<200	294	1360	<1200	<24	960	2350	3,310	3.3
B-SO-4D-13.4-15.4	3/28/2007	660												0	0	0	0
B-SO-4E-6.3	4/2/2007			<24	<24	<120	<200	<300	<200	768	1840	<1200	<24	0	2608	2,608	2.6
B-SO-4E-9.2	4/2/2007			<24	<24	<250	<300	<300	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-4E-9.2YY	4/2/2007			<24	<24	<250	<300	<300	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-4E-14.5	4/2/2007			**2270**	**6670**	387	<500	15500	<400	10100	29000	11700	<24	9327	66300	75,627	75.6
B-SO-4E-14.5YY	4/2/2007			**2030**	**5060**	414	<500	11900	<400	6900	26900	7800	<24	7504	53500	61,004	61.0
B-SO-4E-19.5	4/2/2007			**1070**	862	517	<500	5030	<400	3020	11900	4310	<24	2449	24260	26,709	26.7
B-SO-4F-5.6	3/26/2007			<30	<15	<150	<240	<240	<240	<600	961	<1200	<24	0	961	961	1.0
B-SO-4F-8.6	3/26/2007			<30	<15	<150	<400	670	<240	1570	7580	<1300	<24	0	9820	9,820	9.8
B-SO-4F-8.6YY	3/26/2007		field dup	<30	<15	<150	<400	410	<240	1030	4030	<1200	<30	0	5470	5,470	5.5
B-SO-4F-15.0	3/26/2007			**1190**	**4700**	716	<600	19500	<280	18400	90400	18800	<24	6606	147100	153,706	153.7
B-SO-4F-18.5	3/26/2007			468	681	247	<400	5490	<240	3090	15600	3600	<24	1396	27780	29,176	29.2
B-SO-5A-6.0	3/26/2007			<18	<8	<120	<60	<120	<120	<300	<300	<600	<24	0	0	0	0
B-SO-5A-9.0	3/26/2007			<18	<8	<120	<60	<120	<120	<300	<300	<600	<24	0	0	0	0
B-SO-5A-13.2	3/26/2007			<18	<8	<120	<60	<120	<120	<300	<300	<600	<24	0	0	0	0
B-SO-5A-16.5	3/26/2007			<18	<8	<120	<60	<120	<120	<300	<300	<600	<24	0	0	0	0
B-SO-5A-8.0-10.0	3/26/2007	4700												0	0	0	0
B-SO-5C-5.3	3/27/2007			<30	<15	<150	<150	<300	<300	<600	<600	<1500	<40	0	0	0	0
B-SO-5C-9.0	3/27/2007			<30	<15	<150	<150	<300	<300	<600	<600	<1500	<40	0	0	0	0
B-SO-5C-13.2	3/27/2007			<30	<15	<150	<150	<300	<300	<600	<600	<1500	<40	0	0	0	0
B-SO-5C-16.7	3/27/2007			<30	<15	<150	<150	<300	<300	<600	<600	<1500	<40	0	0	0	0
B-SO-5C-16.7YY	3/27/2007		field dup	<30	<15	<150	<150	<300	<300	<600	<600	<1500	<40	0	0	0	0
B-SO-5C-21.0	3/27/2007			<30	<15	<150	<150	<300	<300	<600	<600	<1500	<40	0	0	0	0
B-SO-5D-5.8	3/27/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-5D-10.5	3/27/2007			<30	<30	<240	<700	<2500	<240	11300	48000	8700	<30	0	68000	68,000	68.0
B-SO-5D-10.5YY	3/27/2007		field dup	<30	<30	<240	<700	<3500	<240	32000	111000	25000	<30	0	168000	168,000	168.0
B-SO-5D-14.0	3/27/2007			106	815	103	<120	1400	<240	693	3730	1180	<30	1024	7003	8,027	8.0

OEME MOBILE LABORATORY VOC AND FIXED LABORATORY TOC RESULTS, MARCH-APRIL 2007 VERTICAL PROFILING EFFORT
OTTATI & GOSS SUPERFUND SITE
SOIL SAMPLES FROM DIRECT-PUSH RIG

Location	Date	TOC	Notes	Mobile Laboratory Results, ug/kg wet weight (ppb)										Total Chlor	Total BTEX	Total VOCs	Total VOCs
		Concn (ppb)		TCE	PCE	cis-1,2-DCE	Benzene	Toluene	trans-1,2-DCE	Ethylbenzene	m/p xylene	o-xylene	1,1,1-TCA	(ppb)	(ppb)	(ppb)	(ppm)
B-SO-5E-5.0	3/29/2007			<24	<24	<120	<120	<200	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-5E-9.4	3/29/2007			<24	<24	<120	<200	<500	<200	<600	1260	<1200	<24	0	1260	1,260	1.3
B-SO-5E-10.5	3/29/2007			<24	<24	<120	<200	<300	<200	<600	2190	<1200	<24	0	2190	2,190	2.2
B-SO-5E-13.0	3/29/2007			<24	20	<120	<200	1460	<200	2520	11800	2360	<24	20	18140	18,160	18.2
B-SO-5E-14.5	3/29/2007			74	850	110	<200	1030	<200	460	2290	1030	<24	1034	4810	5,844	5.8
B-SO-5E-19.0	3/29/2007			458	994	303	<200	2710	<200	990	4470	1460	<24	1755	9630	11,385	11.4
B-SO-5E-9.4-10.4	3/29/2007	2400												0	0	0	0
B-SO-5E-18.0-20.0	3/29/2007	1400												0	0	0	0
B-SO-5E-12.5-14.5	3/29/2007	2000												0	0	0	0
B-SO-6D-10.7	3/30/2007			<24	<24	<120	<200	<300	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-6D-12.5	3/30/2007			<24	<24	<120	<200	<300	<200	<600	<600	<1200	<24	0	0	0	0
B-SO-6D-16.5	3/30/2007			<24	15	<120	<200	<300	<200	<600	607	<1200	<24	15	607	622	0.6
B-SO-6E-9.4	3/30/2007			<24	<24	<120	<400	<400	<200	<600	2340	<1200	<24	0	2340	2,340	2.3
B-SO-6E-13.2	3/30/2007			<24	<24	<120	<300	<200	<200	<600	3500	<1200	<24	0	3500	3,500	3.5
B-SO-6E-17.2	3/30/2007			<24	<24	<120	<400	<300	<200	<600	2360	<1200	<24	0	2360	2,360	2.4
B-SO-6E-20.8	3/30/2007			<24	72	<120	<400	<300	<200	<600	1020	<1200	<24	72	1020	1,092	1.1
B-SO-6E-20.8YY	3/30/2007		field dup	<24	52	<120	<400	<300	<200	<600	1140	<1200	<24	52	1140	1,192	1.2
B-SO-6E-23.5	3/30/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
AREA A SOIL																	
A-SO-1Q-8.5	4/3/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-1Q-10.0	4/3/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-1Q-15.5	4/3/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-1Q-17.8	4/3/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-2E-10.4	4/4/2007			<24	<24	<120	<200	<400	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-2E-12.7	4/4/2007			<24	<24	<120	<200	<400	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-2E-16.7-18.0	4/4/2007	370															
A-SO-2E-17.5	4/4/2007			<24	<24	<120	<200	<400	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-2T-5.0	4/2/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<1200	0	0	0	0
A-SO-2T-8.5	4/2/2007			<24	<24	<120	<400	840	<200	<600	840	<1200	<24	0	1680	1,680	1.7
A-SO-2T-14.3	4/2/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-2T-18.5	4/2/2007			<34	1270	<300	<500	396	<200	998	4460	991	<34	1270	6845	8,115	8.1
A-SO-2T-18.5YY	4/2/2007			<34	**2120**	<300	<500	814	<200	1780	10100	2200	<34	2120	14894	17,014	17.0
A-SO-3P-5.9	4/3/2007			<24	72	<120	<200	248	<200	<600	<600	<1200	<24	72	248	320	0.3
A-SO-3P-8.6	4/3/2007			<24	18	<120	<200	1240	<200	<600	840	<1200	<24	18	2080	2,098	2.1
A-SO-3P-14.1	4/3/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-3P-17.7	4/3/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-3P-21.5	4/3/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-3Q-6.4	4/3/2007			<24	<24	<120	<200	<400	<200	<600	3400	<1200	<24	0	3400	3,400	3.4
A-SO-3Q-8.8	4/3/2007			<24	<24	<120	<200	<400	<200	<600	1540	<1200	<24	0	1540	1,540	1.5
A-SO-5F-10.1	4/5/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-5F-16.5-18.0	4/5/2007	1400															
A-SO-5F-17.5	4/5/2007			140	1490	<200	<400	1470	<200	2200	8700	2380	<24	1630	14750	16,380	16.4
A-SO-5F-20.0	4/5/2007			247	630	314	<200	1570	<200	1010	3100	1260	<24	1191	6940	8,131	8.1
A-SO-5F-20.0YY	4/5/2007			166	495	256	<200	1120	<200	785	3070	1160	<24	917	6135	7,052	7.1
A-SO-5F-20.5	4/5/2007			62	224	<200	<200	<500	<600	<600	1840	<1200	<24	286	1840	2,126	2.1

OEME MOBILE LABORATORY VOC AND FIXED LABORATORY TOC RESULTS, MARCH-APRIL 2007 VERTICAL PROFILING EFFORT
OTTATI & GOSS SUPERFUND SITE
SOIL SAMPLES FROM DIRECT-PUSH RIG

Location	Date	TOC	Notes	Mobile Laboratory Results, ug/kg wet weight (ppb)										Total Chlor	Total BTEX	Total VOCs	Total VOCs
		Concn (ppb)		TCE	PCE	cis-1,2-DCE	Benzene	Toluene	trans-1,2-DCE	Ethylbenzene	m/p xylene	o-xylene	1,1,1-TCA	(ppb)	(ppb)	(ppb)	(ppm)
A-SO-5H-9.1	4/5/2007			<24	13	<200	<200	<300	<200	468	2970	501	<24	13	3939	3,952	4.0
A-SO-5H-13.5-15.2	4/5/2007	250															
A-SO-5H-13.5-15.2YY	4/5/2007	290															
A-SO-5H-14.5	4/5/2007			<24	<24	<200	<200	<300	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-5H-18.3	4/5/2007			<24	<24	<200	<200	<300	<200	<600	396	<1200	<24	0	396	396	0.4
A-SO-5H-18.3YY	4/5/2007			<24	<24	<200	<200	<300	<200	<600	594	<1200	<24	0	594	594	0.6
A-SO-5X-4.8	4/4/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-5X-9.4	4/4/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-5X-13.5-14.5	4/4/2007	660															
A-SO-5X-14.7	4/4/2007			<24	17	<120	<200	<200	<200	<600	<600	<1200	<24	17	0	17	0.0
A-SO-5X-16.1	4/4/2007			62	620	<120	<200	<400	<200	806	1780	<1200	<24	682	2586	3,268	3.3
A-SO-7E-9.8	4/4/2007			<24	<24	<120	<200	<400	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-7E-14.2	4/4/2007			<24	<24	<120	<200	<400	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-7Q-5.5	4/5/2007			<18000	<18000	<18000	<90000	<150000	<90000	**362000**	**1500000**	259000	<18000	0	2121000	2,121,000	2121.0
A-SO-7Q-8.0	4/5/2007			<24	<24	<200	<200	<300	<200	305	1230	<1200	<24	0	1535	1,535	1.5
A-SO-7Q-12.0	4/5/2007			<24	<24	<200	<200	<300	<200	<600	602	<1200	<24	0	602	602	0.6
A-SO-7Q-16.2	4/5/2007			<24	<24	<200	<200	<300	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-7T-2.3	4/3/2007			<24	<24	<300	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-7T-5.1	4/3/2007			<60	139	<25000	<25000	**1100000**	<600	**294000**	780000	75000	<34	139	2249000	2,249,139	2249.1
A-SO-7T-5.1YY	4/3/2007			PRODUCT- NOT ANALYZED										0	0	0	0
A-SO-7T-9.7	4/3/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-7T-13.5	4/3/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-7T-17.0	4/3/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0
A-SO-7T-19.5	4/3/2007			<24	<24	<120	<200	<200	<200	<600	<600	<1200	<24	0	0	0	0

Notes:

Bolded Results: Concentration is greater than the NH S-2 standard for this compound

Soil samples collected over a range of depths are for TOC analysis only and were not sent to mobile lab. The TOC samples are composites over the depths indicated in the sample location name.

NHDES Method 1 S-2 standards: NHDES Risk Characterization and Management Policy, Appendix E, Revised April 2007

Field dup = field duplicate sample (samples with notation "YY" at end of Sample ID)

See Figure 1-6 for sample locations. The last digits of each sample name represent the sample collection depth (or range of depths), in feet below ground surface.

TCE = trichloroethene

PCE = tetrachloroethene (perchloroethene)

cis-1,2-DCE = cis-1,2-dichloroethene

1,1,1-TCA = 1,1,1-trichloroethane

TOC = Total Organic Carbon

APRIL 5-9, 2010 - FIELD SAMPLING WITH EPA MOBILE LABORATORY
OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

SOIL SAMPLING LOCATIONS

AREA A:					
2007 Vertical Profiling Location (Baseline)	Nearest Injection or PM Well	Rationale	Priority Sampling Depth (ft)****	Baseline Contaminant / Concentration*	2010 Soil Boring Location
Asogw5F	MEPM-A17	~10 ft up grade of A17 - high soil concentrations Chlorinated and BTEX compounds.	17.5	BTEX / 14750 ppm cVOC / 1630 ppm	AE-ASO-4
Agwso5X	D06	West end of 2009 Subarea A-14, high gw and soil concentrations.	16.1	BTEX / 2586 ppm cVOC / 682 ppm	AE-ASO-2
Agw3G	MEPM-A18	Area of low chlorinated VOCs, but very high Chloromethane concentrations. Likely product of oxidant treatment, not on soil.	21	Chloromethane / 5200 ppm**	AE-ASO-6
Aso5H	MEPM-A17	~35 ft down grade of A17 - high soil concentrations, has treatment migrated down gradient	9.1	BTEX / 3939 ppm cVOC / 13 ppm	AE-ASO-5
Agw4B	H14	High groundwater concentrations, soil not confirmed at this location. Center of 2009 Subarea A15	17.5	BTEX / 10430 ppm cVOC / 3866 ppm	AE-ASO-3
Agw5V	D02	East end of 2009 Subarea A-11 moderate vertical profile gw concentrations.	14.5	BTEX / 16450 ppm cVOC / 4995 ppm	AE-ASO-1
AREA B:					
2007 Vertical Profiling Location (Baseline)	Nearest Injection or PM Well	Reasoning	Priority Sampling Depth (ft)****	Baseline Contaminant / Concentration*	2010 Soil Boring Location
No VPL	R04	Visual observations from soil boring/well install indicated contaminant layers. PID 210 ppm at 4-11 ft bgs.	8	TVOC 6770 ppm**	AE-BSO-01
No VPL	S02	Westward extent of B13 area. Confirm extent of contamination. Note: S02 original flagged location, not active injection point.	7.5	INJB-S03 / 5-10 ft / 134 ppm PID	AE-BSO-02
Bso1F	R03	High soil concentrations of Chlorinated and/or BTEX	6.5	BTEX / 15640 ppm cVOC / 61 ppm	AE-BSO-03
Bso3D	L01	High soil concentrations of Chlorinated and/or BTEX. Up gradient of 2009 injection, see if there are effects from 2008 injections.	16.5	BTEX / 7555 ppm cVOC / 3395 ppm	AE-BSO-07
Bso2F	M04/N05	High soil concentrations of Chlorinated and/or BTEX. Located down gradient of 2009 injections, see if migration of treatment occurred.	19.3	BTEX / 19750 ppm cVOC / 6050 ppm	AE-BSO-10
Bso3E	M02	High soil concentrations of Chlorinated and/or BTEX	13	BTEX / 18530 ppm cVOC / 2166 ppm	AE-BSO-04
Bso4F	E04/F05	High soil concentrations of Chlorinated and/or BTEX	15	BTEX / 147100 ppm cVOC / 6606 ppm	AE-BSO-06
Bso3F	I04/J05	High soil concentrations of Chlorinated and/or BTEX	10.8	BTEX / 25720 ppm cVOC / 2684 ppm	AE-BSO-09
Bso4E	H03/PMB10s	High soil concentrations of Chlorinated and/or BTEX	14.5	BTEX / 66300 ppm cVOC / 9327 ppm	AE-BSO-08
AREA C:					
2008 Vertical Profiling Location (Baseline)	Nearest Injection or PM Well	Reasoning	Priority Sampling Depth (ft)****	Baseline Contaminant / Concentration*	2010 Soil Boring Location
CgwG18	B09 / East ME-C05	Low 1,4-dioxane but high PCE/TCE concentrations .	12.1 (PCE) 23 (Diox)	PCE / 82 ppm Diox / 23 ppm	AE-CSO-03
CgwI11	C01 / West ME-C05	Area high 1,4-dioxane.	22	Diox / 32 ppm	AE-CSO-02

COMPARISON OF VOCS IN SOIL PRE- AND POST-ISCO
OTTATI & GOSS SUPERFUND SITE - KINGSTON, NH

Location	Depth (ft bgs)	Date	Mobile Laboratory Results, ug/kg wet weight (ppb)									Total
			PCE	TCE	cis-1,2-DCE	Benzene	Toluene	Ethylbenzene	m/p xylene	o-xylene	1,1,1-TCA	(ppb)
AREA A SOIL												
Pre-ISCO Boring A-SO-5F / Post-ISCO Boring AE-ASO-04												
A-SO-5F-10.1	10.1	Apr-07	<24	<24	<120	<200	<200	<600	<600	<1200	<24	0
AE-ASO-04	8	Apr-10	<6	<11	<130	<40	400	<250	500	<500	<8	900
AE-ASO-04	12.5	Apr-10	<6	<11	<130	<40	<60	<250	360	<500	<8	360
A-SO-5F-17.5	17.5	Apr-07	1,490	140	<200	<400	1,470	2,200	8,700	2,380	<24	16,380
AE-ASO-04 (RAS)	17	Apr-10	<5.5	<5.5	1.6	<5.5	0.5	<5.5	0.71	<5.5	<5.5	2.77
A-SO-5F-20.0	20	Apr-07	630	247	314	<200	1,570	1,010	3,100	1,260	<24	8,131
A-SO-5F-20.5	20.5	Apr-07	224	62	<200	<200	<500	<600	1,840	<1200	<24	2,126
AE-ASO-04	24	Apr-10	<6	<11	<130	<40	<60	<250	<250	<500	<8	0
Pre-ISCO Boring A-SO-5H / Post-ISCO Boring AE-ASO-05												
A-SO-5H-14.5	14.5	Apr-07	<24	<24	<200	<200	<300	<600	<600	<1200	<24	0
AE-ASO-05	12.5	Apr-10	<6	<11	<130	<40	<60	<250	<250	<500	<8	0
A-SO-5H-18.3	18.3	Apr-07	<24	<24	<200	<200	<300	<600	396	<1200	<24	396
AE-ASO-05	17.5	Apr-10	<6	<11	<130	<40	400	<250	360	<500	<8	760
AE-ASO-05	23.2	Apr-10	<6	<11	<130	<40	<60	<250	420	<500	<8	420
Pre-ISCO Boring A-SO-5X / Post-ISCO Boring AE-ASO-02												
A-SO-5X-9.4	9.4	Apr-07	<24	<24	<120	<200	<200	<600	<600	<1200	<24	0
A-SO-5X-14.7	14.7	Apr-07	17	<24	<120	<200	<200	<600	<600	<1200	<24	17
AE-ASO-02	12.5	Apr-10	<6	<11	<130	<40	<60	<250	<250	<500	<8	0
A-SO-5X-16.1	16.1	Apr-07	620	62	<120	<200	<400	806	1780	<1200	<24	3,268
AE-ASO-02	16	Apr-10	4	11	<130	<40	<60	<250	<250	<500	<8	15
AE-ASO-02	16	Apr-10	15	4.4	55	<6.4	3	48	31	<6.4	<6.4	156

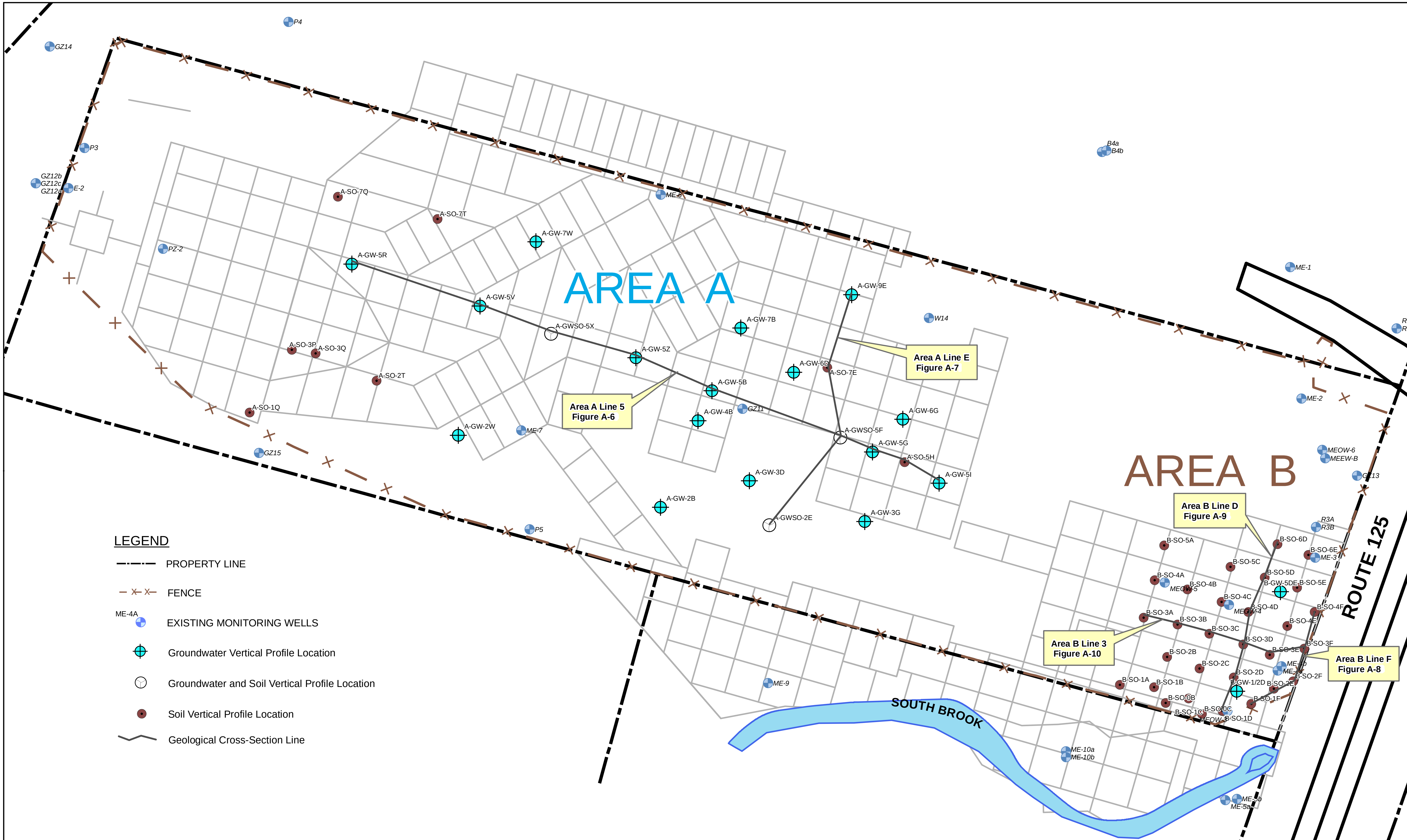
COMPARISON OF VOCS IN SOIL PRE- AND POST-ISCO
OTTATI & GOSS SUPERFUND SITE - KINGSTON, NH

Location	Depth (ft bgs)	Date	Mobile Laboratory Results, ug/kg wet weight (ppb)									Total
			PCE	TCE	cis-1,2-DCE	Benzene	Toluene	Ethylbenzene	m/p xylene	o-xylene	1,1,1-TCA	(ppb)
AREA B SOIL												
Pre-ISCO Boring B-SO-1F / Post-ISCO Boring AE-BSO-03												
B-SO-1F-6.5	6.5	Mar-07	25	36	<120	<300	1,770	2,110	9,540	2,220	<24	15,701
AE-BSO-03 (RAS)	6.5	Apr-10	<5.4	<5.4	0.44	8.9	<5.4	4,100	17	2	<5.4	5,728
B-SO-1F-9.5	9.5	Mar-07	<24	<24	<120	<120	<200	<600	<600	<1200	<24	0
B-SO-1F-14.0	14	Mar-07	<24	<24	<120	<120	<200	<600	<600	<1200	<24	0
AE-BSO-03	11.5	Apr-10	182	95	<130	<40	960	590	1,900	800	<8	4,527
B-SO-1F-17.5	17.5	Mar-07	<24	<24	<120	<120	<200	<600	<600	<1200	<24	0
AE-BSO-03	17	Apr-10	<6	<11	<130	<40	<80	<250	<250	<500	<8	0
Pre-ISCO Boring B-SO-2F / Post-ISCO Boring AE-BSO-10												
BO-SO-2F-6.0	6	Mar-07	<20	<40	<500	<400	819	<1500	1,300	<3000	<60	2,119
BO-SO-2F-8.4	8.4	Mar-07	<20	<40	<500	<400	2,070	5,480	15,100	3,310	<60	25,960
AE-BSO-10	7	Apr-10	<6	<11	<130	<400	700	<250	410	<500	<8	1,110
BO-SO-2F-11.0	11	Mar-07	4,580	535	<500	<400	6,060	9,850	38,300	7,660	<60	66,985
AE-BSO-10	12	Apr-10	<6	16	<130	<60	<80	<250	<250	<500	<8	16
BO-SO-2F-19.3	19.3	Mar-07	4790	920	340	<400	4,660	2,400	10,700	1,990	<60	25,800
AE-BSO-10	19.3	Apr-10	790	177	<130	<80	1,120	840	2,900	680	<8	6,507
Pre-ISCO Boring B-SO-3D / Post-ISCO Boring AE-BSO-07												
B-SO-3D-10.0	10	Mar-07	<24	<24	<120	<200	<400	<600	766	<1200	<24	766
AE-BSO-07	10.5	Apr-10	<6	<11	<130	<60	<80	<250	<250	<500	<8	0
B-SO-3D-15.0	15	Mar-07	366	206	574	<200	919	<600	781	<1200	<24	2,846
B-SO-3D-16.5	16.5	Mar-07	2,420	577	398	<200	3,150	755	2,760	890	<24	10,950
AE-BSO-07	16.5	Apr-10	1,100	330	325	<60	960	1,040	3,360	850	<8	7,965
Pre-ISCO Boring B-SO-3E / Post-ISCO Boring AE-BSO-04												
B-SO-3E-6.4	6.4	Apr-07	<48	<48	<400	<600	<1200	4,200	15,100	2,900	<24	22,200
AE-BSO-04	6.5	Apr-10	<6	<11	<130	<60	<80	<250	<250	<500	<8	0
B-SO-3E-13.0	13	Apr-07	643	739	784	<300	3,500	2,780	9,200	3,050	<24	20,696
AE-BSO-04 (RAS)	13	Apr-10	<4.8	<4.8	<4.8	<4.8	<4.8	35	28	6	<4.8	69
B-SO-3E-16.0	16	Apr-07	692	330	485	<300	2,600	2,830	10,200	2,900	<24	20,037
AE-BSO-04	16	Apr-10	295	10	<130	<60	230	500	1,400	420	<8	2,855
B-SO-3E-18.2	18.2	Apr-07	390	104	324	<300	1,180	811	2,190	<1200	<24	4,999
AE-BSO-04	22.5	Apr-10	42	21	<130	<60	160	<250	280	<500	<8	503

COMPARISON OF VOCS IN SOIL PRE- AND POST-ISCO
OTTATI & GOSS SUPERFUND SITE - KINGSTON, NH

Location	Depth (ft bgs)	Date	Mobile Laboratory Results, ug/kg wet weight (ppb)									Total
			PCE	TCE	cis-1,2-DCE	Benzene	Toluene	Ethylbenzene	m/p xylene	o-xylene	1,1,1-TCA	(ppb)
AREA B SOIL												
Pre-ISCO Boring B-SO-3F / Post-ISCO Boring AE-BSO-09												
B-SO-3F-5.5	5.5	Mar-07	<12	<40	<240	<280	480	12,800	55,000	8,600	<30	76,880
AE-BSO-09	6.5	Apr-10	41	<11	<130	<60	710	<250	310	<500	<8	1,061
B-SO-3F-10.8	10.8	Mar-07	1,740	379	565	<300	4,360	3,350	15,100	2,910	<30	28,404
AE-BSO-09 (RAS)	11.5	Apr-10	120	2,000	2	<6	720	2,700	10,000	2,700	<6	18,259
B-SO-3F-15.1	15.1	Mar-07	464	398	389	<300	1,980	884	3,540	940	<30	8,595
AE-BSO-09	16.5	Apr-10	256	290	378	<60	2,000	870	2,800	720	<8	7,314
B-SO-3F-20.0	20	Mar-07	396	399	530	<300	2,700	1,520	6,940	1,600	<30	14,085
AE-BSO-09	24	Apr-10	<6	<6	<130	<60	<80	<250	<250	<500	<8	0
Pre-ISCO Boring B-SO-4E / Post-ISCO Boring AE-BSO-08												
B-SO-4E-6.3	6.3	Apr-07	<24	<24	<120	<200	<300	768	1,840	<1200	<24	2,608
AE-BSO-08	6.5	Apr-10	<6	<11	<130	<60	<100	<250	390	<500	<8	390
B-SO-4E-9.2	9.2	Apr-07	<24	<24	<250	<300	<300	<600	<600	<1200	<24	0
B-SO-4E-14.5	14.5	Apr-07	6670	2270	387	<500	15,500	10,100	29,000	11,700	<24	75,627
AE-BSO-08	11	Apr-10	<6	<11	<130	<60	<100	<250	440	<500	<8	440
B-SO-4E-19.5	19.5	Apr-07	862	1,070	517	<500	5,030	3,020	11,900	4,310	<24	26,709
AE-BSO-08	18.5	Apr-10	390	262	227	<80	1,900	1,400	4,200	780	<8	9,159
AE-BSO-08	23	Apr-10	42	19	<130	<80	170	290	1,000	<500	<8	1,521
Pre-ISCO Boring B-SO-4F / Post-ISCO Boring AE-BSO-06												
B-SO-4F-5.6	5.6	Mar-07	<15	<30	<150	<240	<240	<600	961	<1200	<24	961
AE-BSO-06	6	Apr-10	<6	<11	<130	<60	<100	<250	<250	<500	<8	0
B-SO-4F-15.0	15	Mar-07	4,700	1,190	716	<600	19,500	18,400	90,400	18,800	<24	153,706
B-SO-4F-18.5	18.5	Mar-07	681	468	247	<400	5,490	3,090	15,600	3,600	<24	29,176
AE-BSO-06	17	Apr-10	<6	<11	<130	690	680	<250	830	<500	<8	2,200

Notes:
1. All concentrations reported from USEPA OEME Mobile laboratory except where noted: RAS fixed laboratory confirmation sample. RAS results shown where detected concentrations were greater than those reported by the OEME Mobile Laboratory.
2. Total VOC value on this table is a summation of compounds listed in this table.



LEGEND

- PROPERTY LINE
- FENCE
- ME-4A EXISTING MONITORING WELLS
- Groundwater Vertical Profile Location
- Groundwater and Soil Vertical Profile Location
- Soil Vertical Profile Location
- Geological Cross-Section Line

NOTES

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.

Feet
100 50 0 100

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METCALF & EDDY | AECOM

OTTATI & GOSS SUPERFUND SITE
KINGSTON, NEW HAMPSHIRE

FIGURE A-1
VERTICAL PROFILING SAMPLING LOCATIONS
AND CROSS-SECTION LOCI

N
W E
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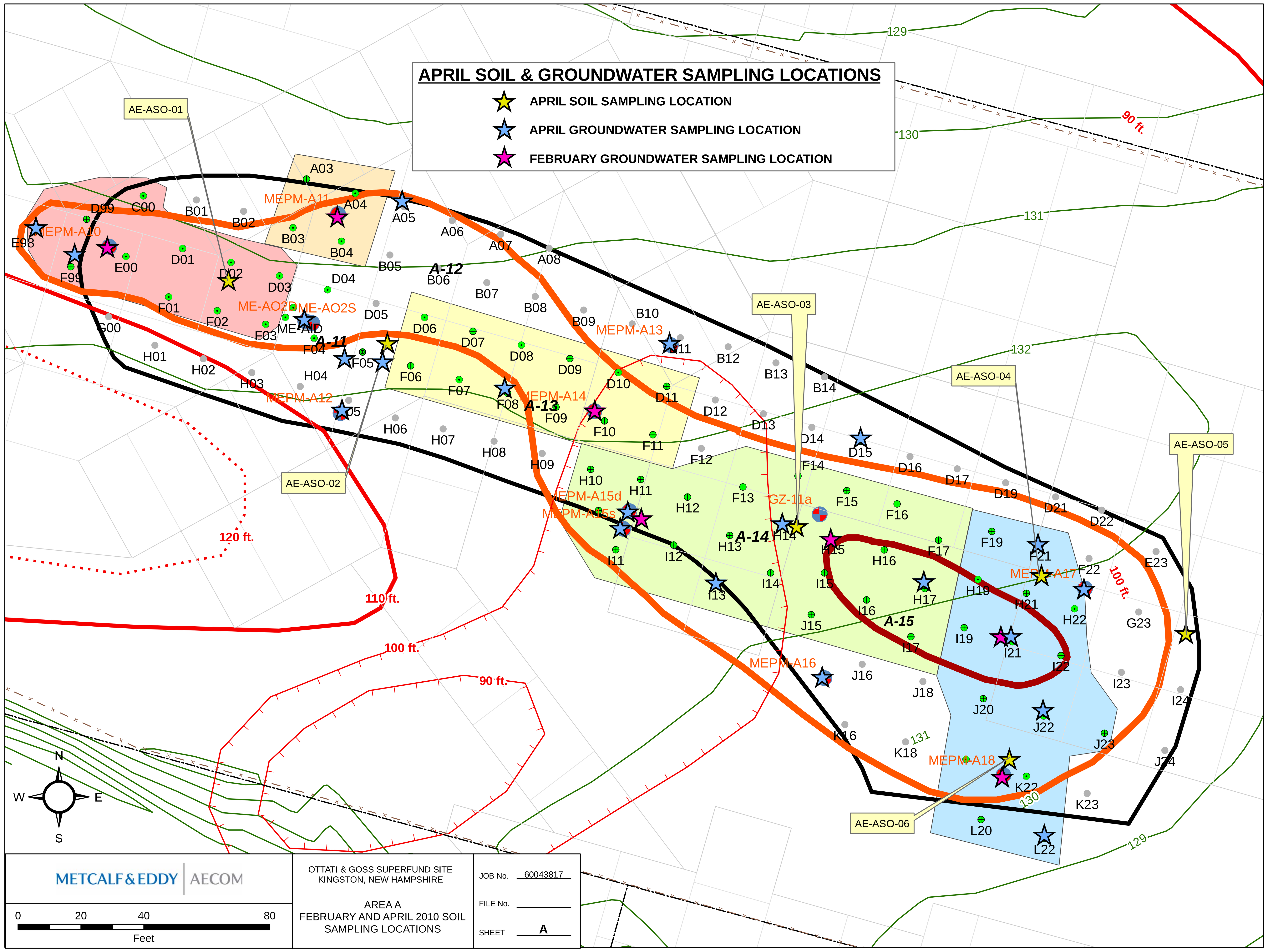

LEGEND

- PROPERTY LINE
- FENCE
- STREAMS OR POND
- WETLANDS
- 129 GROUND SURFACE CONTOURS (USACE 2002)
- 100 BEDROCK CONTOUR INTERPRETATION (METCALF & EDDY 2008) - HATCHED CONTOURS INDICATE DEPRESSIONS IN THE DIRECTION OF THE HATCH - DASHED WERE INFERRED
- 2008 INJECTION AREA
- ME-C05s EXISTING MONITORING WELL
- ME-A10 PERFORMANCE MONITORING WELL LOCATION
- EXISITNG SINGLE INJECTION WELL LOCATION
- EXISTING COUPLET INJECTION WELL LOCATION
- NEW SINGLE INJECTION WELL LOCATION
- 2008 INJECTION LOCATION

Area A Total VOC Ranges (ppb) - APRIL 2009

- 1,000-10,000
- 10,000 +

Ottati & Goss/Kingston Steel Drum Superfund Site : RA TO#42

Kingston, New Hampshire

2009 INJECTION PLAN - AREA A - Well Installation Progress

Treatment Sub-Areas (Design Treatment Interval)	Location ID	Well Status	Suface Elevation (ft. NGVD88)	Bedrock Elevation (ft. NGVD88)	Depth of Overburden (ft.)	Well Screen Interval (ft. bgs)	
A-11 (7' - 19')	C00	Existing - 1" PVC	131.1	104	27.1	7	18
	D01	Existing - 1" PVC	131.1	108	23.1	7	18.5
	D99	New Well	131.1 est	104 est	27.1 est	11	19
	E98	New Well	131.3 est	105 est	26.3 est	11	19
	F99	New Well	131.5 est	105 est	26.5 est	11	19
	D02	Existing - 1" PVC	131.1	108	23.1	7.4	19.4
	D03	Existing - 1" PVC	131.1	108	23.1	7	19
	E00	Existing - 1" PVC	131.3	105	26.3	7	18
	F01	Existing - 1" PVC	131.6	109	22.6	7.2	19.2
	F02	Existing - 1" PVC	131.6	109	22.6	7	19
	F03	Existing - 1" PVC	131.5	109	22.5	7.2	18.2
A-12 (7' - 19')	A03	New Well	130.5 est	105.5 est	25 est	11	19
	A04	Existing - 1" PVC	130.5	105.5	25	7.7	17.7
	B03	Existing - 1" PVC	130.9	105.5	25.4	7.8	19.3
	B04	Existing - 1" PVC	130.9	105.5	25.4	7	19
A-13 (16' - 26')	D06D	Existing - 2" PVC	131.3	105	26.3	16	24
	D07D	New Well	131.4	104	27.4	17	25
	D08D	Existing - 2" PVC	131.6	104	27.6	16	24
	F06	New Well	131.8	104	27.8	17	25
	F07D	Existing - 2" PVC	132	104	28	16	24
	F08	New Well	132	102	30	18	24
	D09	New Well	131.6	102	29.6	18	26
	D10	Existing - 1" PVC	131.6	100	31.6	15	25
	D11	New Well	131.8	99	32.8	18	26
	F09	New Well	131.9	101	30.9	18	26
	F10	New Well	131.9	99	32.9	18	26
	F11	New Well	132	97	35	18	26
A-14 (17' - 24')	H10	New Well	132.2	99	33.2	18	24
	H11	New Well	132.3	97	35.3	18	24
	H12	New Well	132.4	97	35.4	18	24
	I-10	New Well	132.4 est	96 est	36.4 est	18	24
	I-11	New Well	132.4 est	96 est	36.4 est	18	24
	I-12	New Well	132.5	96	36.5	18	24
	F13	New Well	132.2	99	33.2	17	24
	F14	New Well	132.2	102	30.2	17	24
	F15	New Well	132.3	103	29.3	17	24
	F16	New Well	132.4	103	29.4	17	24
	F17	New Well	132.3	107	25.3	18	25
	H13	New Well	132.5	98	34.5	17	24
	H14	Existing - 1" PVC	132.3	101	31.3	14	24
	H15	Existing - 1" PVC	132.2	103	29.2	15	25
A-14 (17' - 24')	H16	New Well	132.1	103	29.1	17	24
	H17	New Well	132.1	107	25.1	17	24
	I13	New Well	132.4	97	25.1	17	24
	I14	New Well	132.1	99	33.1	17	24
	I15	New Well	132.2	101	31.2	17	24
	I16	New Well	132.3	101	31.3	17	24
	I17	New Well	132	106.5	25.5	17	24
	J15	New Well	132	101	31	17	24
	D15	New Monitoring Well	132.2	103	29.2	16	24
A-15 (17' - 26')	F19	New Well	132	108	24	18	25
	F21	Existing - 1" PVC	132.1	107.5	24.6	18	25
	H19	Existing - 1" PVC	132	107.5	24.5	18	25
	H21	New Well	132	108	24	17	25
	H22	Existing - 1" PVC	132	108.5	23.5	18	22
	I19	New Well	131.9	106.5	25.4	17	25
	I21	Existing - 1" PVC	131.8	106.5	25.3	15	23
	I22	New Well	131.7	107	24.7	17	25
	J20	New Well	131.7	104	27.7	17	24
	J22	Existing - 1" PVC	131.5	103	28.5	15	22
	J23	New Well	131.3	102	29.3	18	25
	K20	Existing - 1" PVC	131.6	104	27.6	12	21.5
	K22	Existing - 1" PVC	131.4	105	26.4	12	23
	L20	New Well	131.5 est	104.5 est	27 est	18	26
	L22	New Well	131.5 est	104.5 est	27 est	18	26

NOTES

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP - USACE 2002
3. WETLANDS AROUND NORTH BROOK DELINEATED BY METCALF & EDDY 2007
4. INJECTION LOCATIONS ARE SPACED ON A 16-FT, GRID WITHIN THE 10,000 ppb TVOC CONTOUR (SUB AREAS A1-A6) AND ON A 20-FT. GRID WITHIN THE 1,000 ppb TVOC CONTOUR (SUB AREA A7-A8)

INJECTION AREAS

- Area A-11
- Area A-12
- Area A-13
- Area A-14
- Area A-15

Performance Monitoring Well	Surface Elevation (FT. NGVD)	Till Elevation (FT. NGVD)	Bedrock Elevation (FT. NGVD)	Depth of Overburden (FT.)	Screen Interval (FT. bgs.)		ELEV. (FT.NGVD)	
ME-PM-A10	131.57	112.07	104.77	26.8	9	19	122.57	112.57
ME-PM-A11	130.98	110.68	105.58	25.4	10	20	120.98	110.98
ME-PM-A12	132.54	109.04	107.04	25.5	12	22	120.54	110.54
ME-PM-A13	131.8	105.3	<103.8	28+	17	27	114.8	104.8
ME-PM-A14	132.3	104.8	95.3	37	16	26	116.3	106.3
ME-PM-A15S	130.89	-	-	-	14	24	116.89	106.89
ME-PM-A15D	130.87	98.87	96.07	34.8	25	35	105.87	95.87
ME-PM-A16	132.19	105.19	< 105.19	27+	17	27	115.19	105.19
ME-PM-A17	132.09	-	108.59	23.5	17.5	22.5	114.59	109.59
ME-PM-A18	131.91	105.91	105.83	26.8	16	26	115.91	105.91
A01s	131.93	-	-	-	7.48	10.48	124.45	121.45
A01d	131.93	?	113.23	18.7	13.7	18.7	118.23	113.23
GZ-11a	132.9	?	102.8	30.1	2.1	30.1	130.8	102.8

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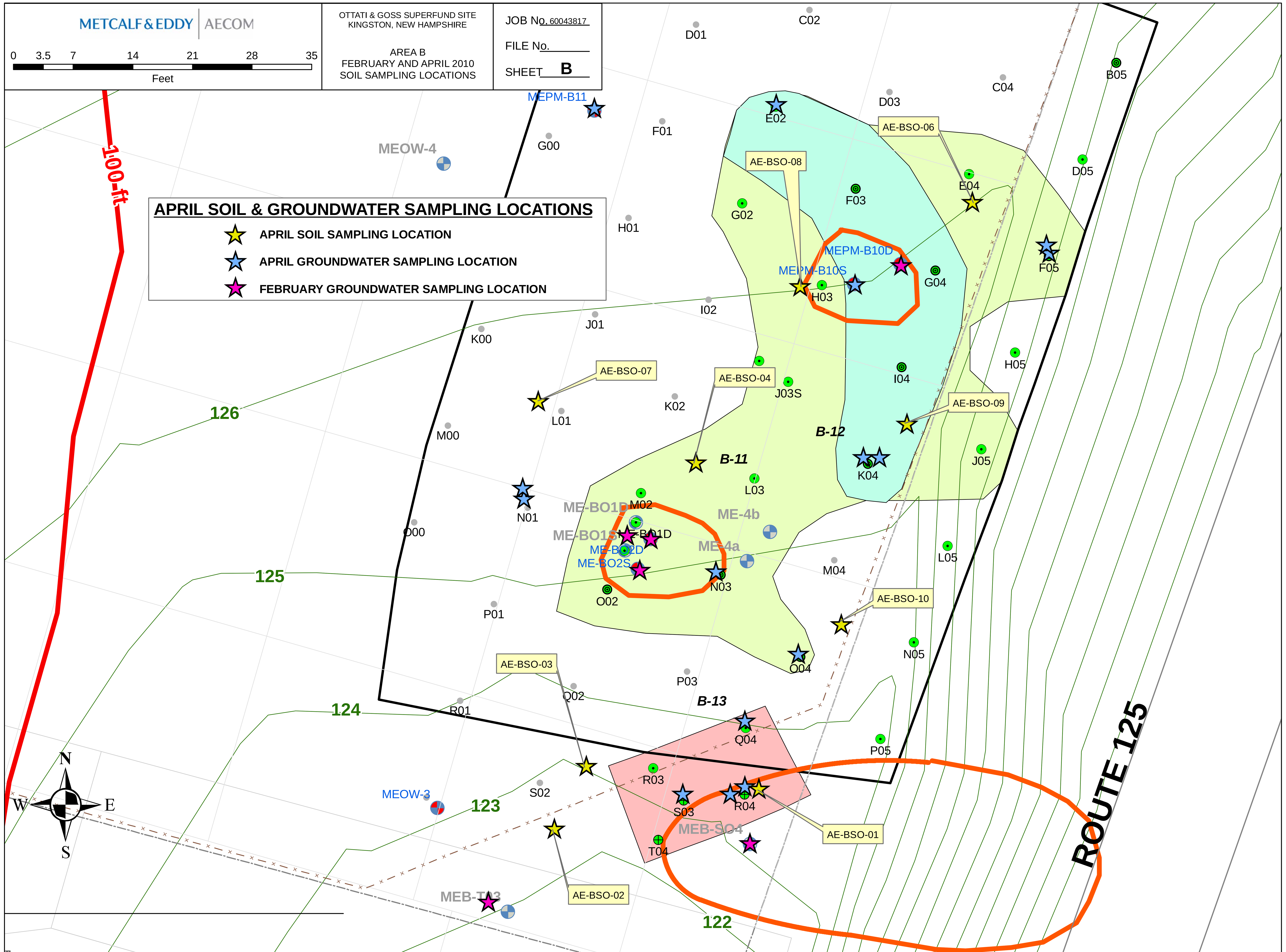

Revised 7/14/09 by W. Abrahams-Dematte

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2009 INJECTION AREAS

- Area B-11
- Area B-12
- Area B-13

LEGEND

- PROPERTY LINE
- FENCE
- STREAMS OR POND
- WETLANDS
- 2008 INJECTION AREA
- ME-C05s EXISTING MONITORING WELL
- ME-A10 PERFORMANCE MONITORING WELL LOCATION
- EXISITNG SINGLE INJECTION WELL LOCATION
- EXISTING COUPLET INJECTION WELL LOCATION
- NEW SINGLE INJECTION WELL LOCATION
- 2008 INJECTION LOCATION
- 129 GROUND SURFACE CONTOURS (USACE 2002)
- 100 BEDROCK CONTOUR INTERPRETATION (METCALF & EDDY 2008)
  - HATCHED CONTOURS INDICATE DEPRESSIONS IN THE DIRECTION OF THE HATCH
  - DASHED WERE INFERRED

Area A Total VOC Ranges (ppb) - APRIL 2009

- 1,000-10,000 (inferred)
- 1,000-10,000

NOTES

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP - ACOE 2002. STREAM CHANNELS ARE APPROXIMATE.
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E 2007.

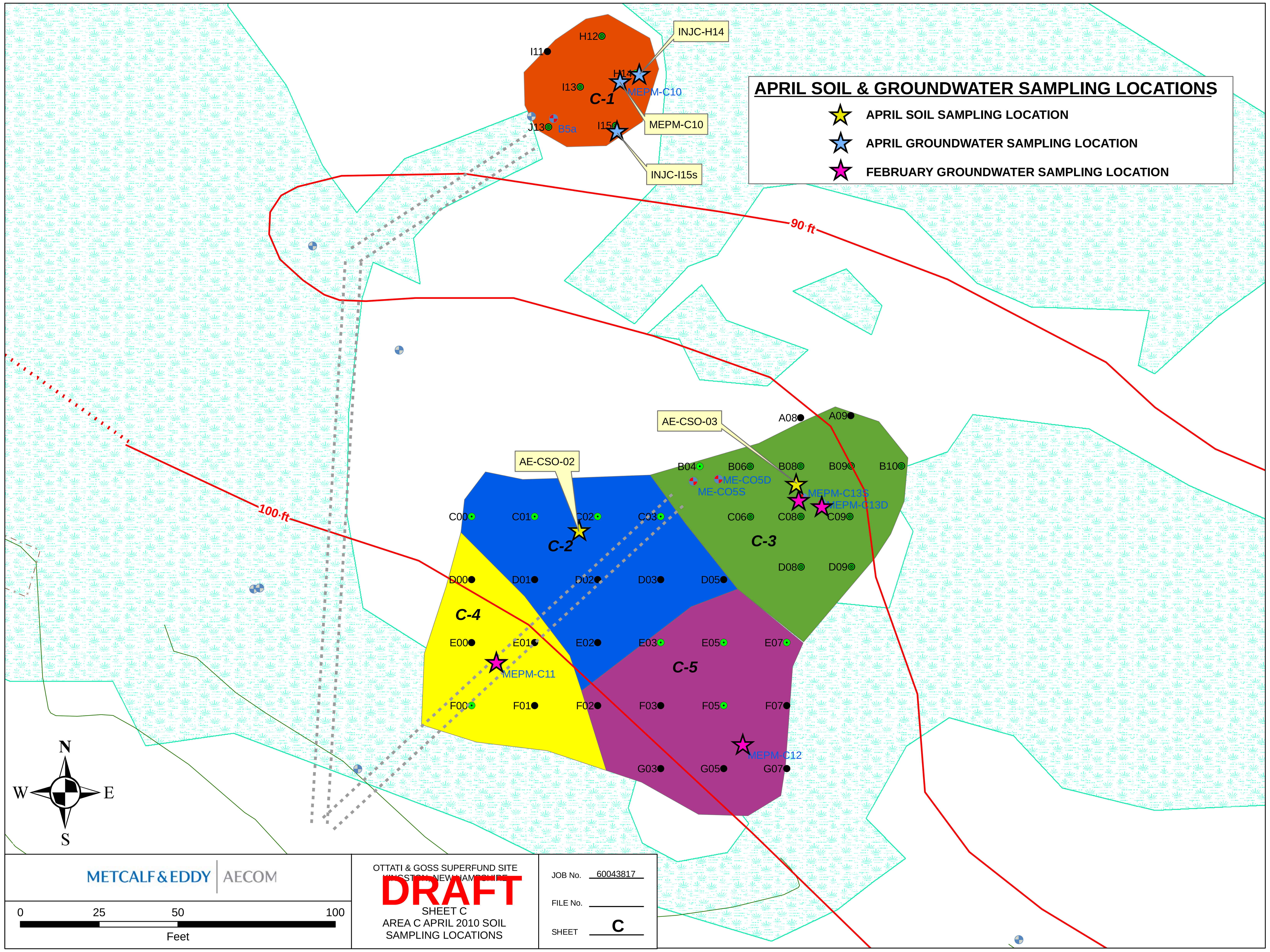
Ottati & Goss/Kingston Steel Drum Superfund Site : RA TO#42

Kingston, New Hampshire

2009 INJECTION PLAN - AREA B

Treatment Sub-Areas	Location ID	Well Status	Suface Elevation (ft NGVD88)	Bedrock Elevation (ft NGVD88)	Depth of Overburden (ft.)	Injection Well Screen Interval (ft. bgs)	
B-11 Shallow Interval	E04	Existing - 1" PVC	126	97	29	9	19
	F03S	Existing - 1" PVC	126.2	97.5	28.7	9.2	19.2
	F05S	Existing - 1" PVC	127.5	97	30.5	8	15
	F05D	Existing - 1" PVC	127.5	97	30.5	15	22
	G02	Existing - 1" PVC	126.3	98	28.3	9.5	19.5
	G04S	Existing - 1" PVC	125.8	97.5	28.3	8.5	18.5
	H03	Existing - 1" PVC	126	98	28	8	18
	I04S	Existing - 1" PVC	125.7	98.5	27.2	4.8	14.8
	J03M	New Well	125.5	99	26.5	13	20
	J05	Existing - 1" PVC	127.5	98.5	29	7	17
	K04S	Existing - 1" PVC	125.2	99	26.2	4.8	14.8
	L03D	Existing - 1" PVC	125.2	100	25.2	12.5	17.5
	M02	Existing - 1" PVC	125.3	100.5	24.8	8.5	18.5
	N03S	Existing - 1" PVC	125	101	24	6	16
	N03D	Existing - 1" PVC	125	101	24	17	22
	O02S	Existing - 1" PVC	125	101.5	23.5	6	16
	O02D	Existing - 1" PVC	125	101.5	23.5	16	21
	O04S	Existing - 1" PVC	124.5	101	23.5	4.8	11.8
	O04D	Existing - 1" PVC	124.5	101	23.5	12.9	22.9
B-12 Deep Interval	E02D	Existing - 1" PVC	126.5	95.5	31	18.8	28.8
	F03D	Existing - 1" PVC	126.2	97.5	28.7	19	27.5
	G04D	Existing - 2" PVC	125.8	97.5	28.3	19	29
	I04D	Existing - 2" PVC	125.7	98.5	27.2	17	27
	K04D	Existing - 2" PVC	125.2	99	26.2	17	27
B-13 Southern Area	Q04	Existing - 1" PVC	123.8	102	21.8	11	21
	R03	Existing - 1" PVC	123.2	102.5	20.7	8	13
	R04	New Well	123.5 est	96.5 est	27 est	11	18
	S03	New Well	123.1 est	96.5 est	26.6 est	11	18
	T04	New Well	122.8 est	96.5 est	26.3 est	11	18

Performance Monitoring Well	Surface Elevation (FT. NGVD)	Till Elevation (FT. NGVD)	Bedrock Elevation (FT. NGVD)	Depth of Overburden (FT.)	Screen Interval (FT. bgs.)		Screen Interval ELEV. (FT.NGVD)	
ME-PM-B10s	126.36	-	-	-	10	20	116.36	106.36
ME-PM-B10d	126.37	-	95.7 est.	30.67 est	24	29	102.37	97.37
ME-PM-B11	126.94	-	97.5 est.	29.44 est	12	22	114.94	104.94
ME-B02s	124.88	?	-	-	9	17	115.88	107.88
ME-B02d	125.26	?	97.5 est.	27.75 est	19.2	14.2	106.06	101.06
MEOW-03	123.25	106.05	105 est	18.25 est	4	9	119.25	114.25



LEGEND

- PROPERTY LINE
- FENCE
- STREAMS OR POND
- WETLANDS
- ACCESS ROUTES INTO AREA C
- ME-C05s EXISTING MONITORING WELL
- ME-A10 PERFORMANCE MONITORING WELL LOCATION
- SINGLE INJECTION WELL LOCATION
- COUPLET INJECTION WELL LOCATION
- TEMPORARY DIRECT PUSH INJECTION LOCATION
- 129 GROUND SURFACE CONTOURS (USACE 2002)
- 100 BEDROCK CONTOUR INTERPRETATION (METCALF & EDDY 2008)
  - HATCHED CONTOURS INDICATE DEPRESSIONS IN THE DIRECTION OF THE HATCH
  - DASHED WERE INFERRED

Ottati & Goss/Kingston Steel Drum Superfund Site : RA TO#28

Kingston, New Hampshire

CONSTRUCTION SUMMARY AS BUILT

Treatment Sub-Areas (Design Treatment Interval)	Location ID	Suface Elevation	Bedrock Elevation	Depth of Overburden	Refusal Depth	Rejection type	Well Screen Interval - S		Well Screen Interval - D		Direct Push Interval	
		ft NGVD88	ft NGVD88	ft.	ft. bgs		ft. bgs		ft. bgs		ft. bgs	
							Top	Bottom	Top	Bottom	Top	Bottom
C-1 (14' - 24')	H12	127	93.5	33.5			13	18	19	24		
	H14	127	93	34			14	21			21	24
	I11	127.5	93	34.5	24						14	24
	I13	127.5	92.5	35			13	18	19	24		
	I15	127.5	91.5	36			13	18	19	24		
	J13	127	91.5	35.5	24	Auger	13	18	19	24		
C-2 (20' - 25')	C00	126	98	28			14.5	19.5				
	C01	126	97.5	28.5			16	21				
	C02	126.5	96	30.5			17	22				
	C03	126.5	95	31.5			18	23				
	D01	126.5	98	28.5	23						20	23
	D02	127	97.5	29.5	25						20	25
	D03	126.5	97	29.5	25						20	25
	D05	126	95	31	25						20	25
	E02	127	99	28	23						20	23
C-3 (4' - 23')	B04	126.5	94	32.5	24	DP	5	15			15	24
	B06	126.5	92.5	34			6	16	18	23		
	B08	126.5	91.5	35			6	16	18	23		
	B09	126.5	89.5	37			6	16	18	23		
	B10	126.5	89	37.5			6	16	18	23		
	C06	126	93.5	32.5			6	16	18	23		
	C08	126	92.5	33.5			6	16	18	23		
	C09	126	90.5	35.5			6	16	18	23		
	D08	126	93	33			6	16	18	23		
	D09	126	90.5	35.5			6	16	18	23		
C-4 (16' - 23')	D00	126	100	26	23						16	23
	E00	126	101	25	20						16	20
	E01	126	100	26	21						16	21
	F00	126	102.5	23.5			15.5	18.5				
	F01	126	101.5	24.5	22.5						16	22.5
C-5 (14' - 18')	E03	126.5	98	28.5			14	18				
	E05	126	96.5	29.5			14	18				
	E07	125.5	95	30.5			14	18				
	F02	126	100.5	25.5	18						15	18
	F03	126	99	27	18						15	18
	F05	126	97.5	28.5	19						14	18
	F07	125.5	96	29.5	20						16	20
	G03	126	100.5	25.5	18						15	18
	G05	126.5	99.5	27	18						16	18
	G07	126.5	97.5	29	18						14	19.75

NOTES

1. BASE MAP WAS COMPILED FROM OTTATI & GOSS OU#4 AS BUILT DRAWINGS.
2. STREAM FEATURES FROM OTTATI & GOSS BEDROCK MAP - ACOE 2002.
3. WETLANDS AROUND NORTH BROOK DELINEATED BY M&E 2007.

INJECTION AREAS

- Area C-1
- Area C-2
- Area C-3
- Area C-4
- Area C-5

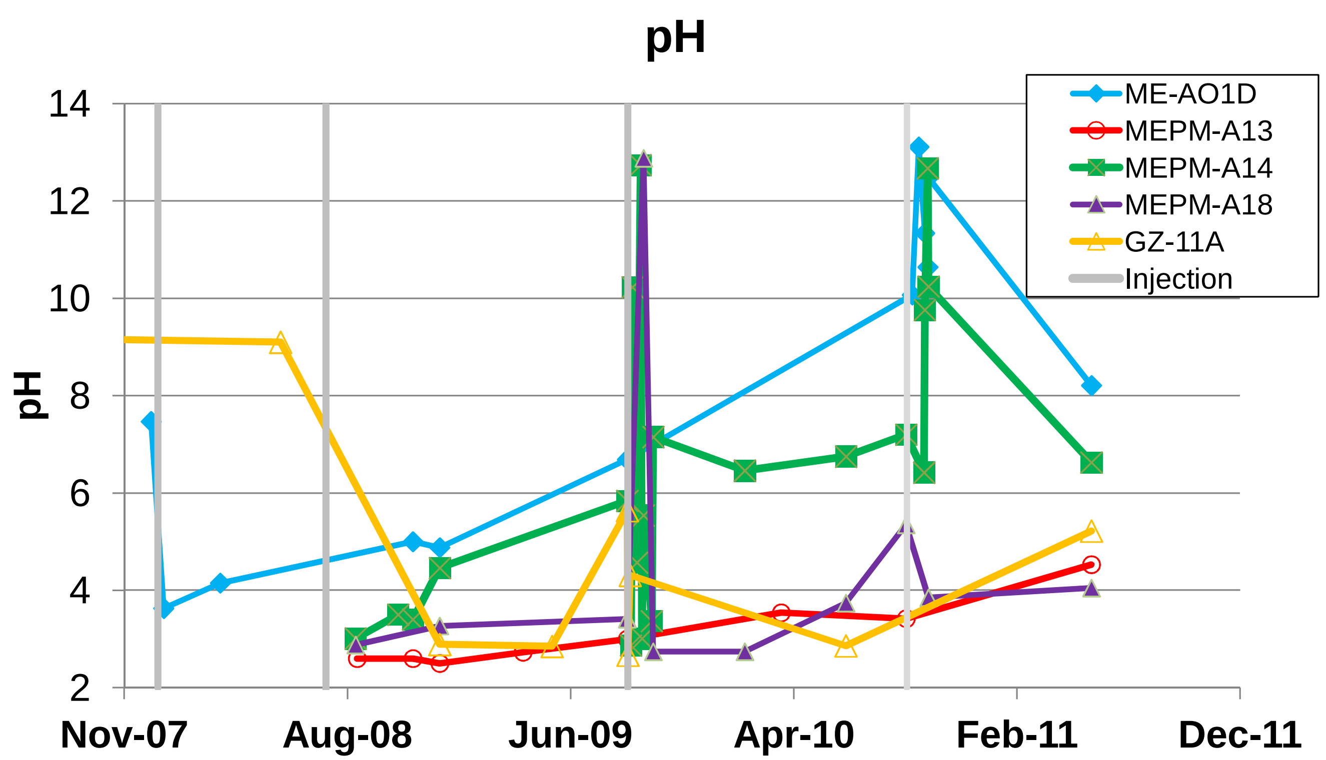
Performance Monitoring Well	Surface Elevation	Till Elevation	Bedrock Elevation	Depth of Overburden	Screen Interval			
	(FT. NGVD)	(FT. NGVD)	(FT. NGVD)	(FT.)	(FT. bgs.)		ELEV. (FT NGVD)	
ME-PM-C10	127.79	-	< 95.79	32+	14	24	113.79	103.79
ME-PM-C11	126.99	108.99	103.49	23.5	14	24	112.99	102.99
ME-PM-C12	126.24	112?	99 est	27.24 est	12	22	114.24	104.24
ME-PM-C13s	126.16	-	-	-	6	16	120.16	110.16
ME-PM-C13d	126.15	96.65	<95.15	31+	17	27	109.15	99.15
ME-C05s	126.3	-	-	-	7.8	17.8	118.47	108.47
ME-C05d	126.47	104?	94.77	31.7	20.2	30.2	106.30	96.30
B-5a	126.61	?	<100.5	26.1+	18.6	25.6	108.05	101.05

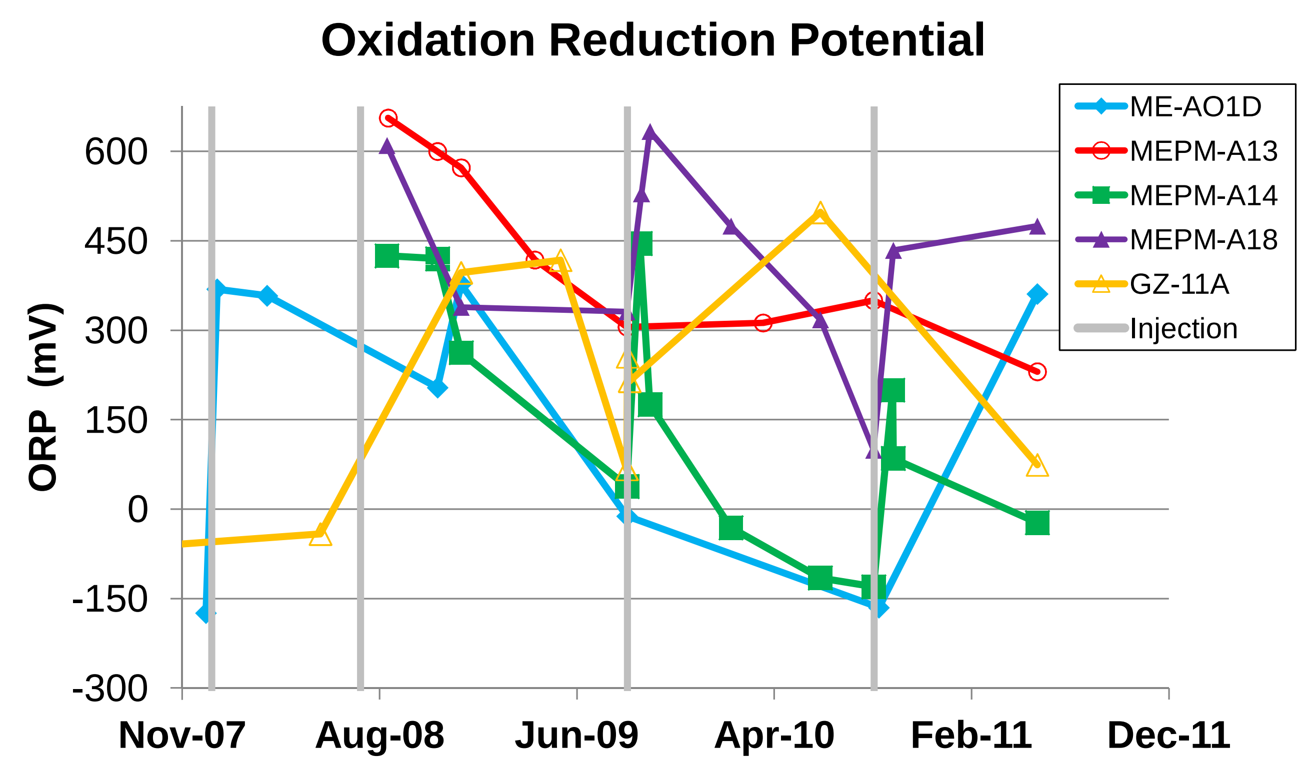
G:\Projects\HAZWASTE\60043817\OTG\Maps\2010_Design_Area C_Draft Apr Smpl.mxd

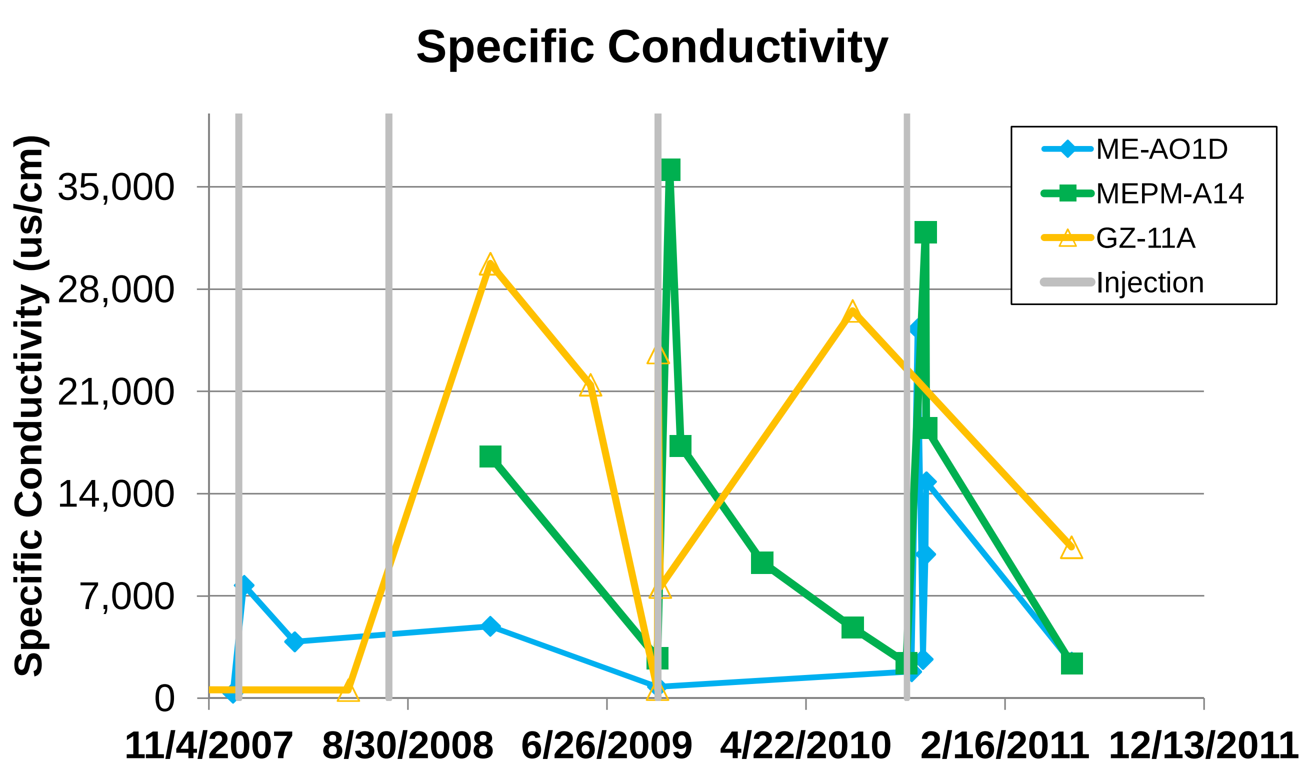
Appendix E

Trends in Groundwater Geochemical Parameters After ISCO Injections

Figure E-1 - Area A Groundwater Quality Parameters With Time After ISCO
Ottati and Goss Superfund Site - Kingston, NH

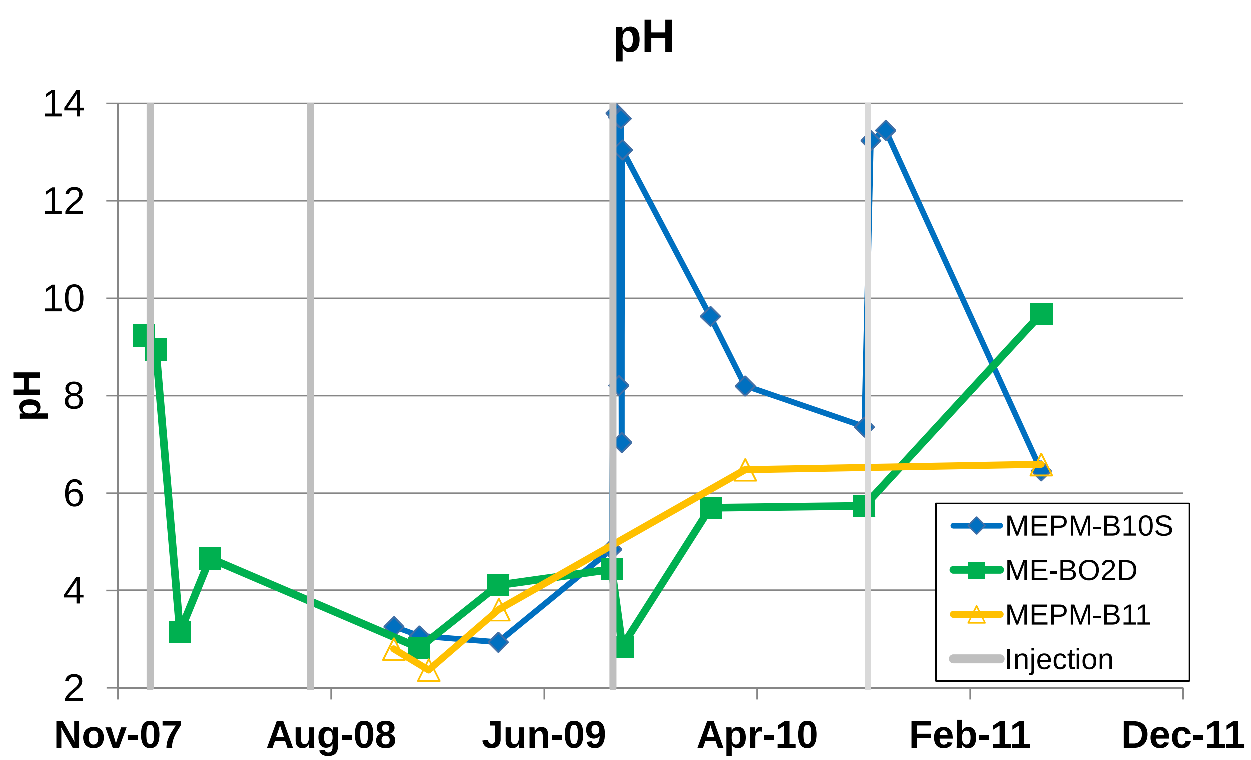


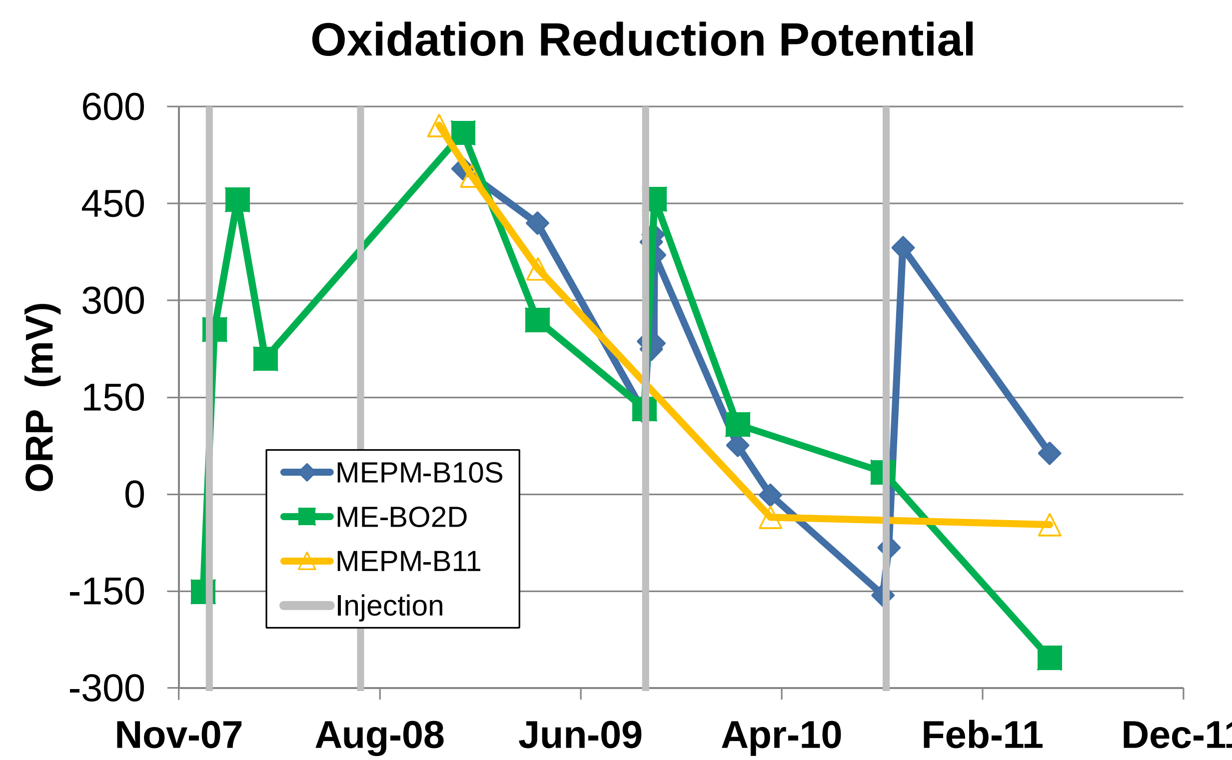


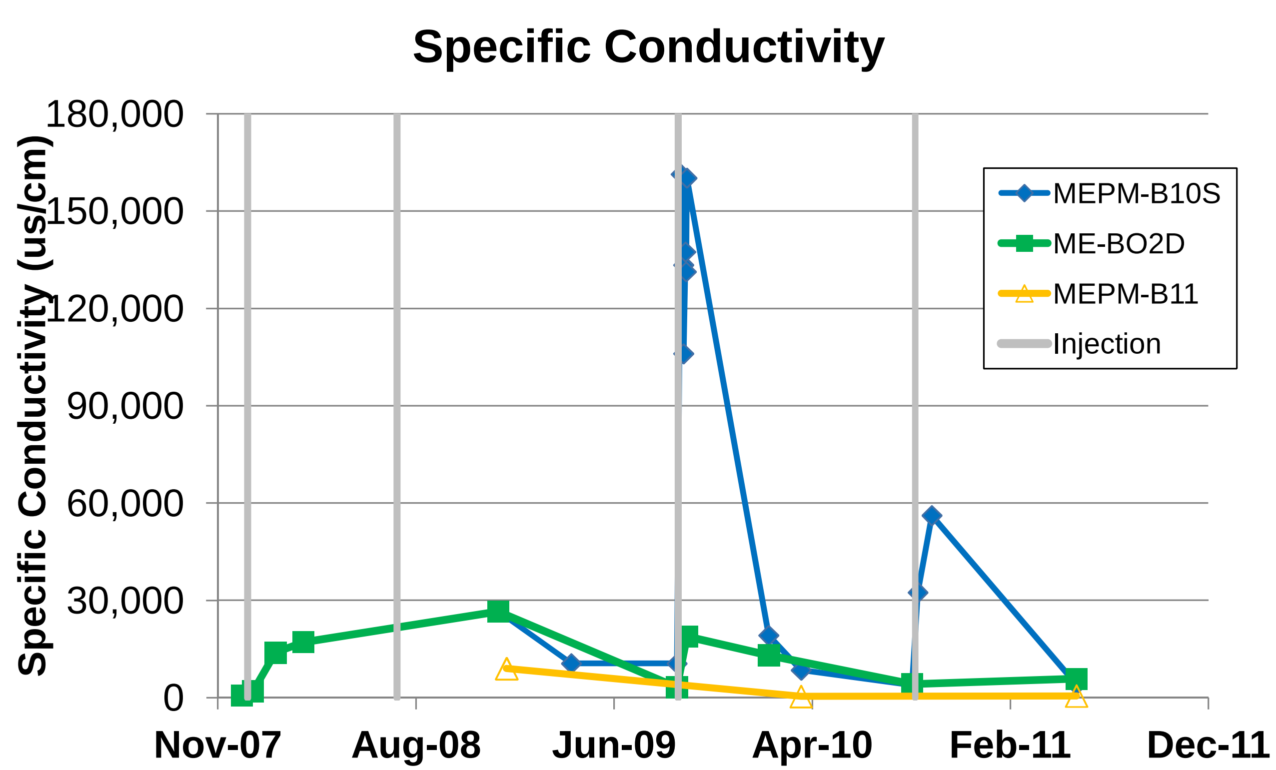


Notes:
Chemical Oxidation injection was only performed in the vicinity of well ME-AO1D in 2008 and 2010.
Chemical Oxidation injection was only performed in the vicinity of well MEPM-A13 in 2008.

Figure E-2 - Area B Groundwater Quality Parameters With Time After ISCO
Ottati and Goss Superfund Site - Kingston, NH

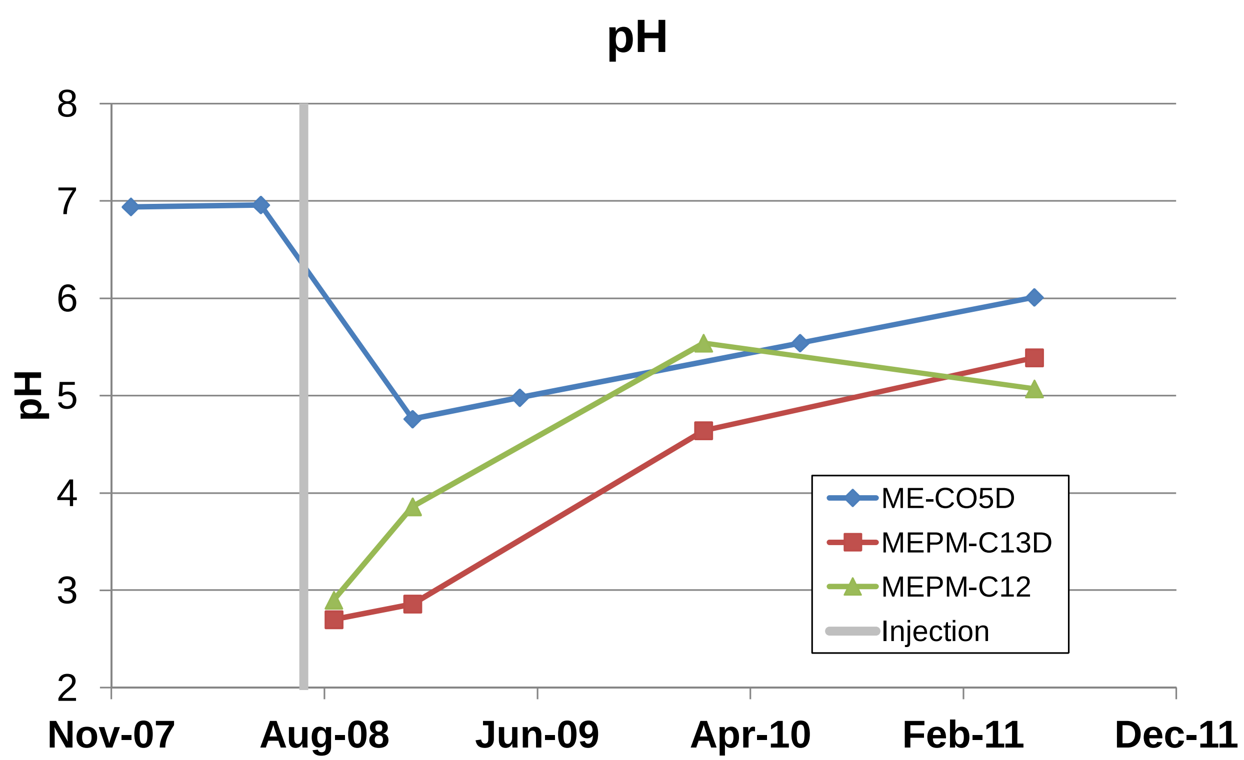


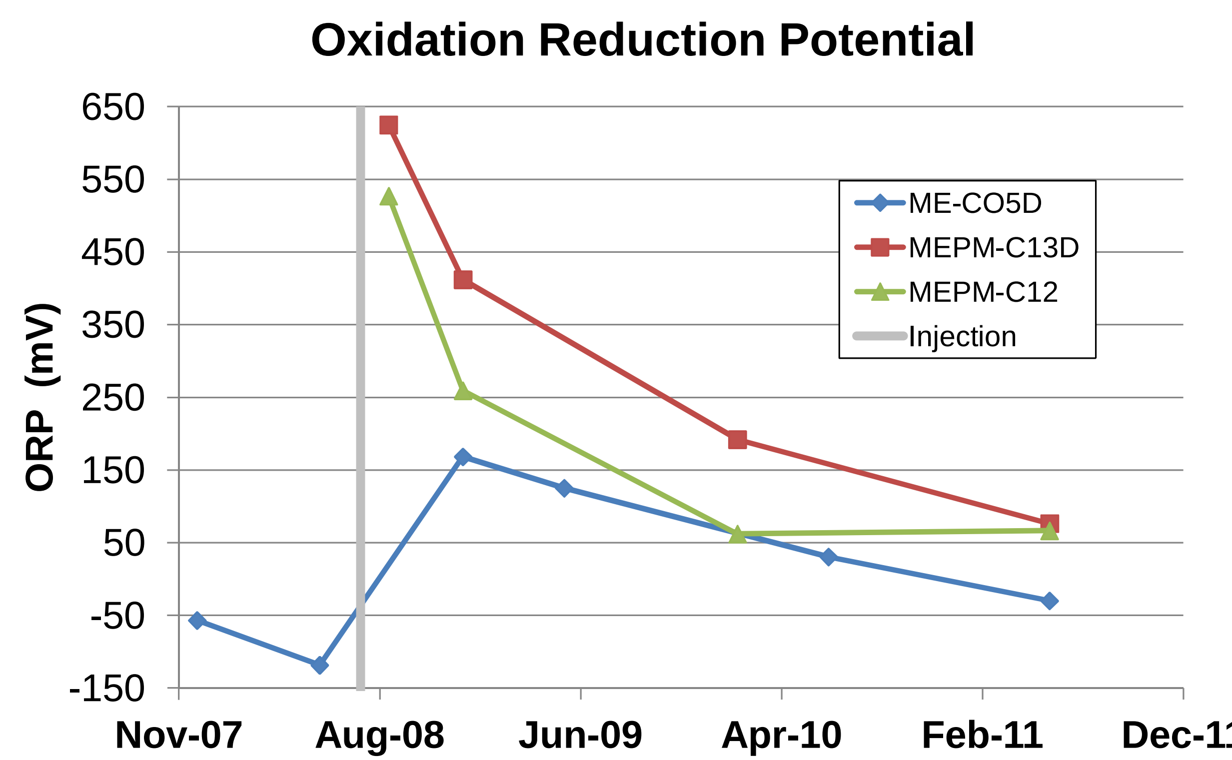


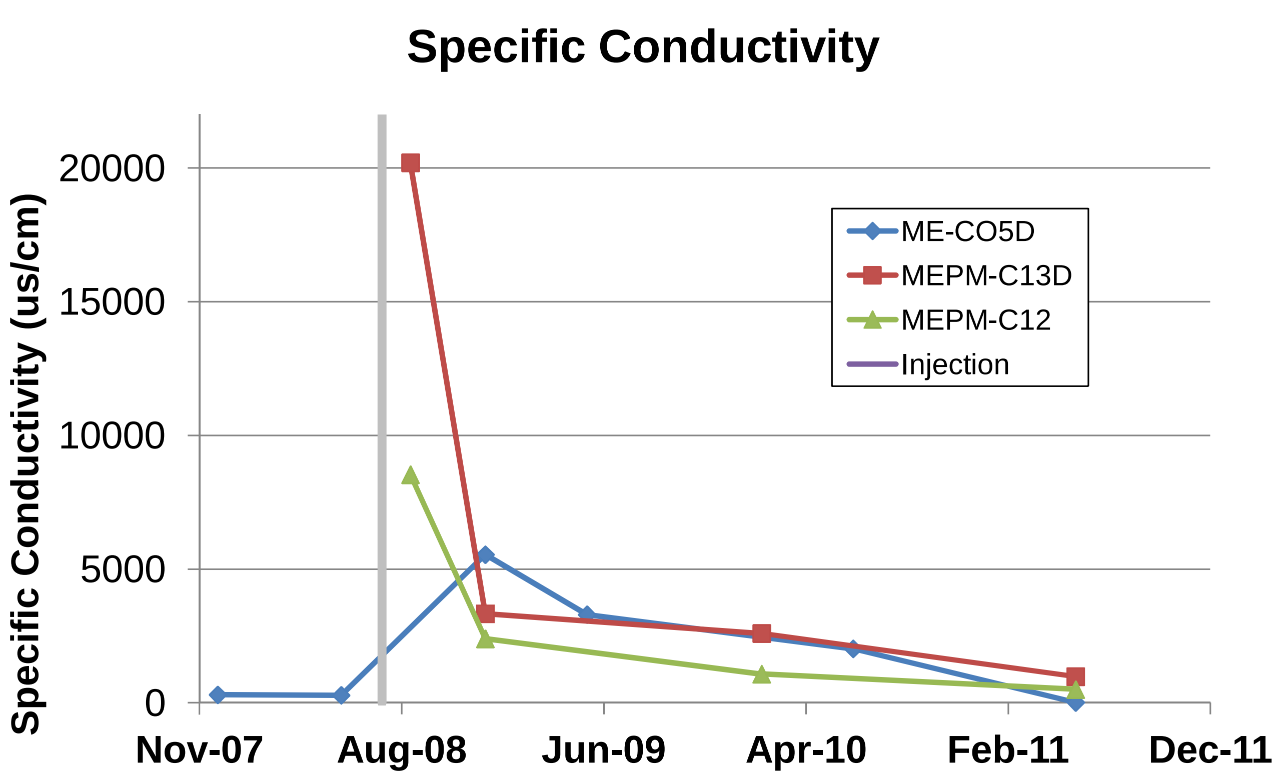


Notes:
Chemical Oxidation injection was only performed in the vicinity of well MEPM-B11 in 2008.
Groundwater quality parameters were not recorded near well ME-BO2D in 2010

Figure E-3 - Area C Groundwater Quality Parameters With Time After ISCO
Ottati and Goss Superfund Site - Kingston, NH





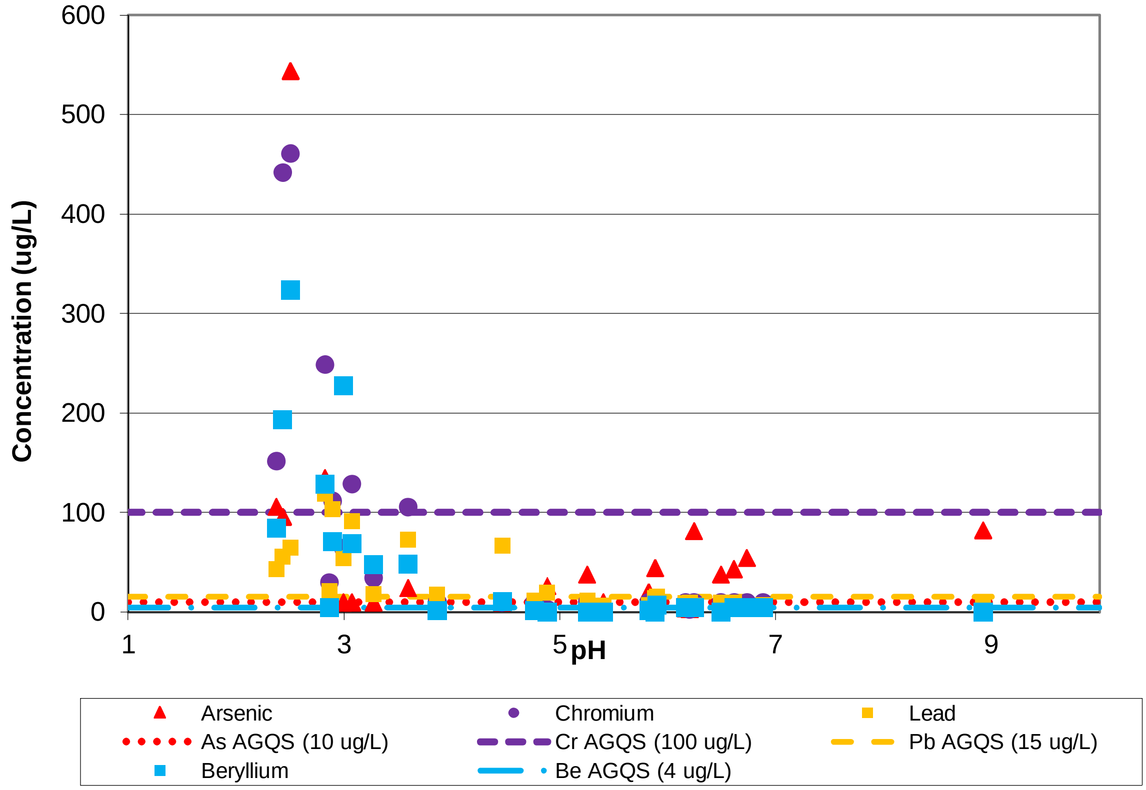


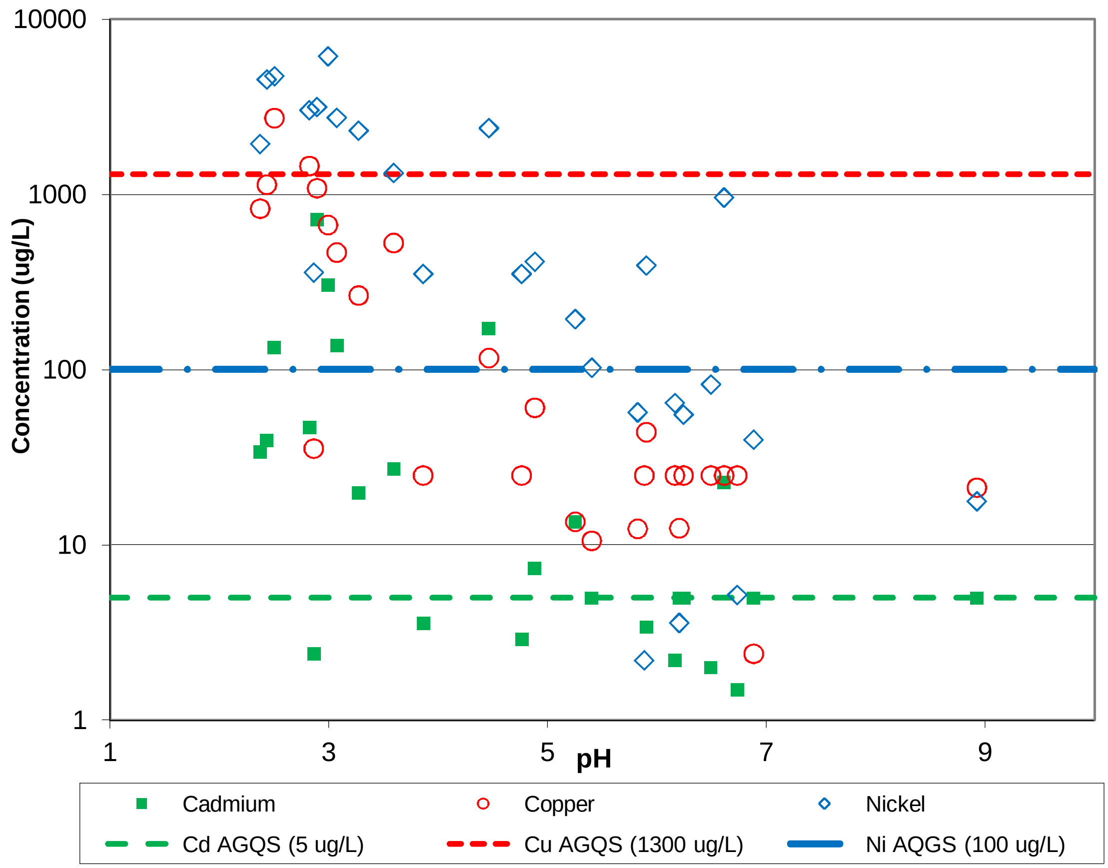
Notes:
Chemical Oxidation injection was only performed in Area C in 2008.

Appendix F

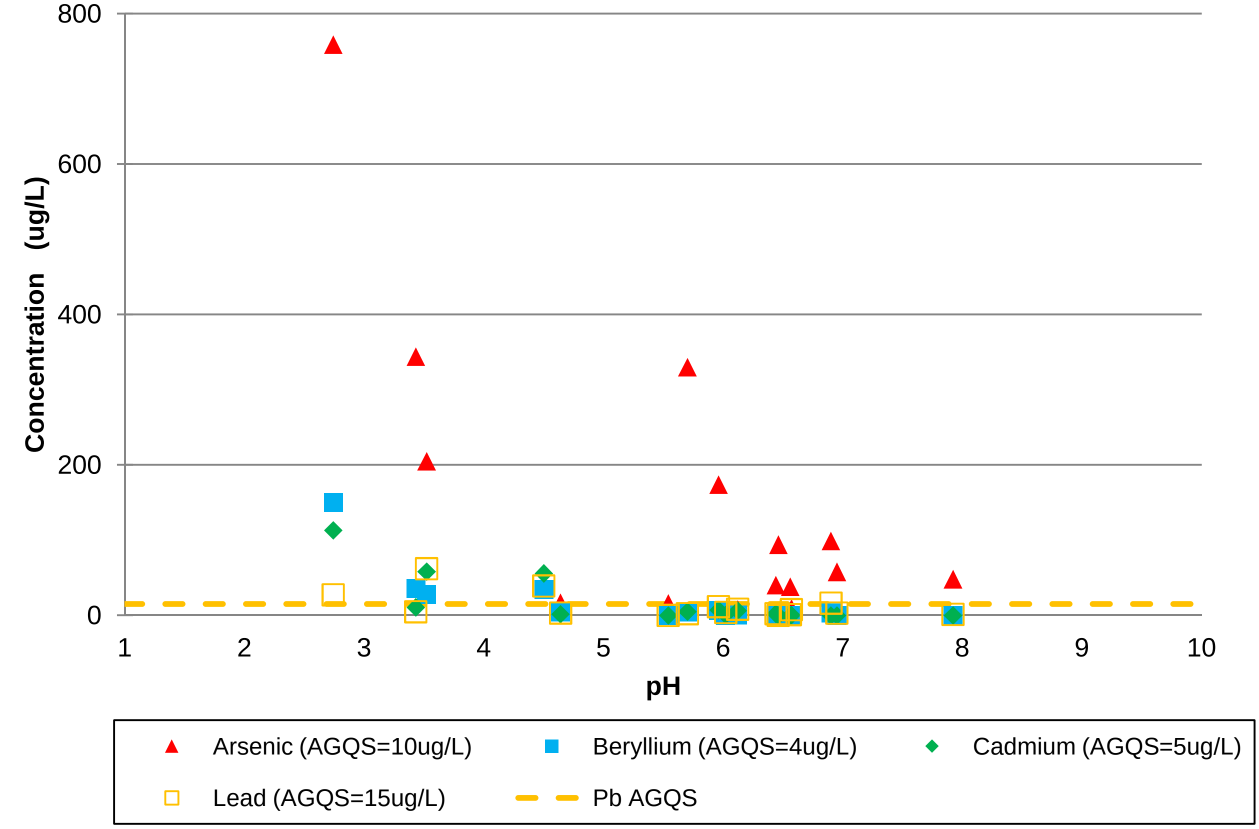
Trends in Groundwater Metals After ISCO Injections

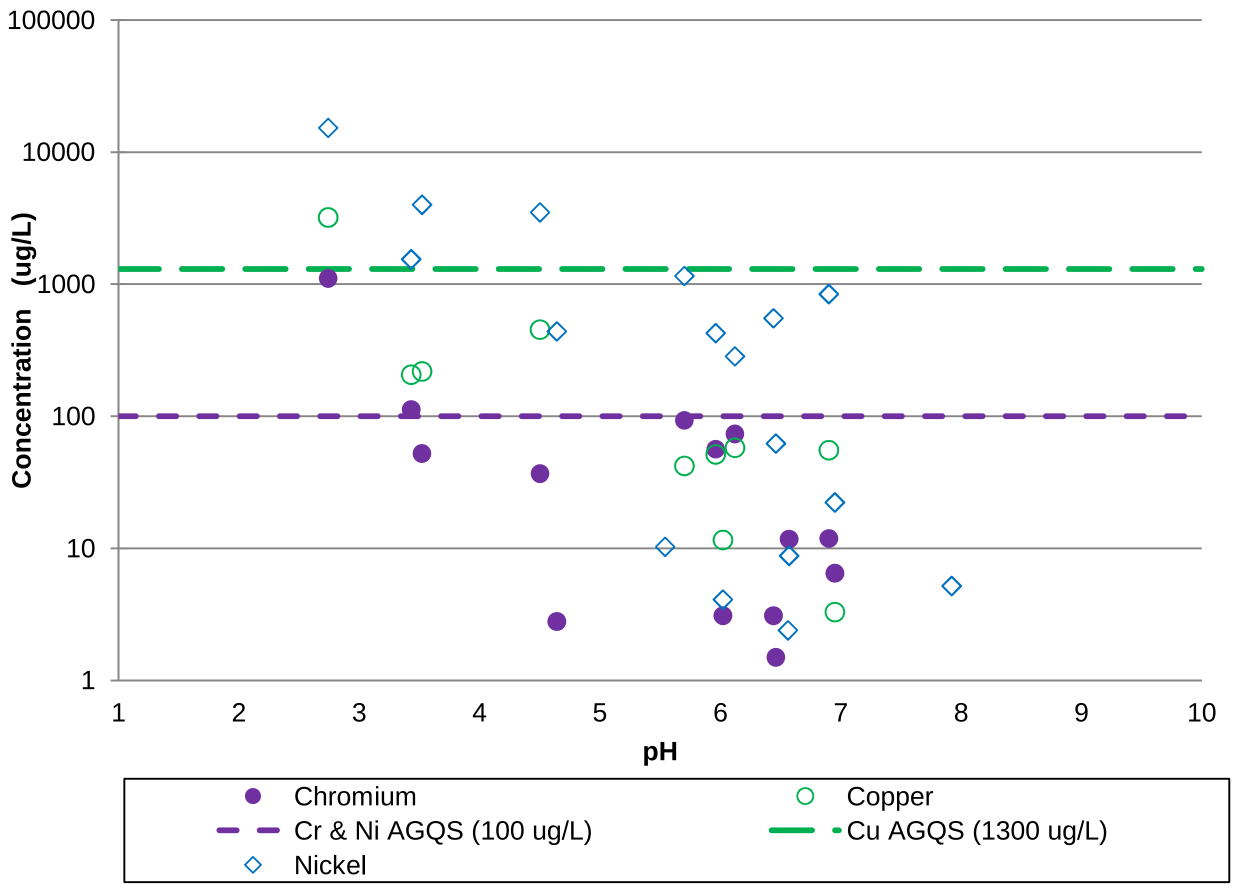
Total Metals versus pH in All Wells from January 2009 Performance Monitoring



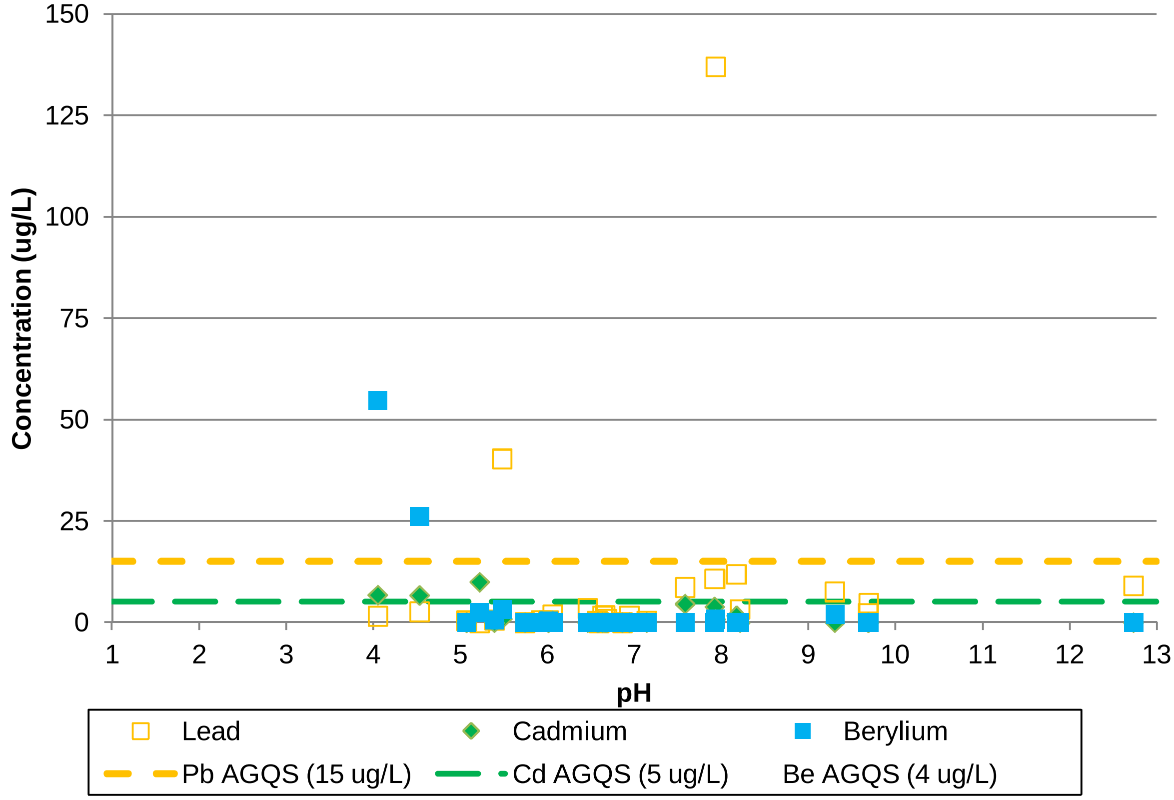


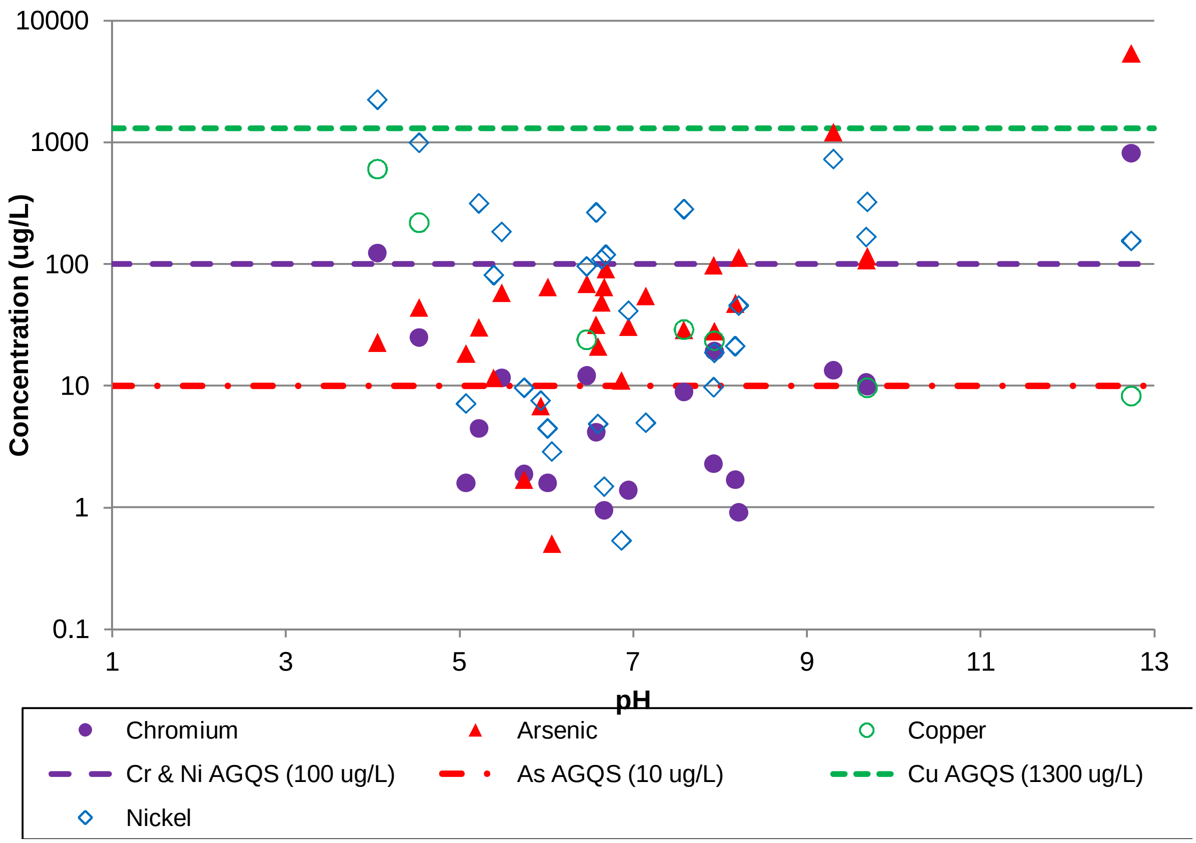
Total Metals versus pH in All Wells from May 2011 Performance Monitoring

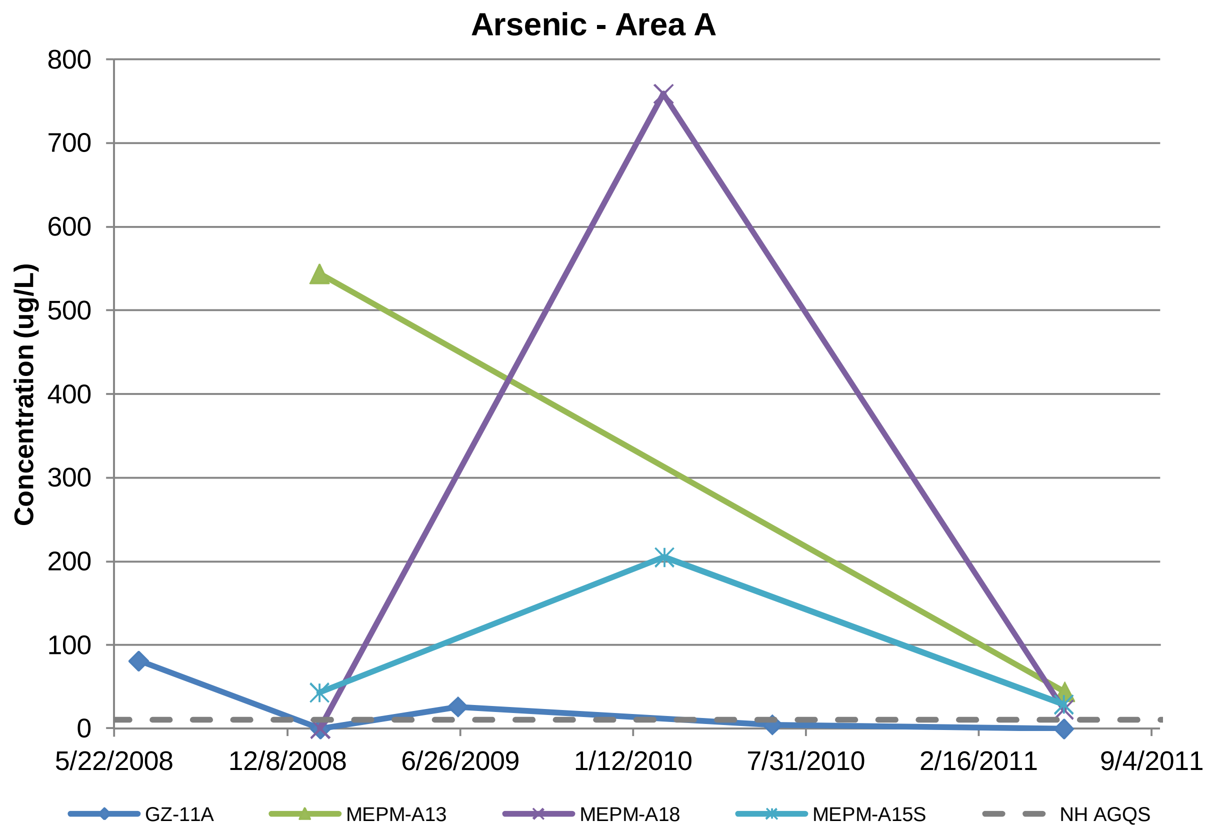


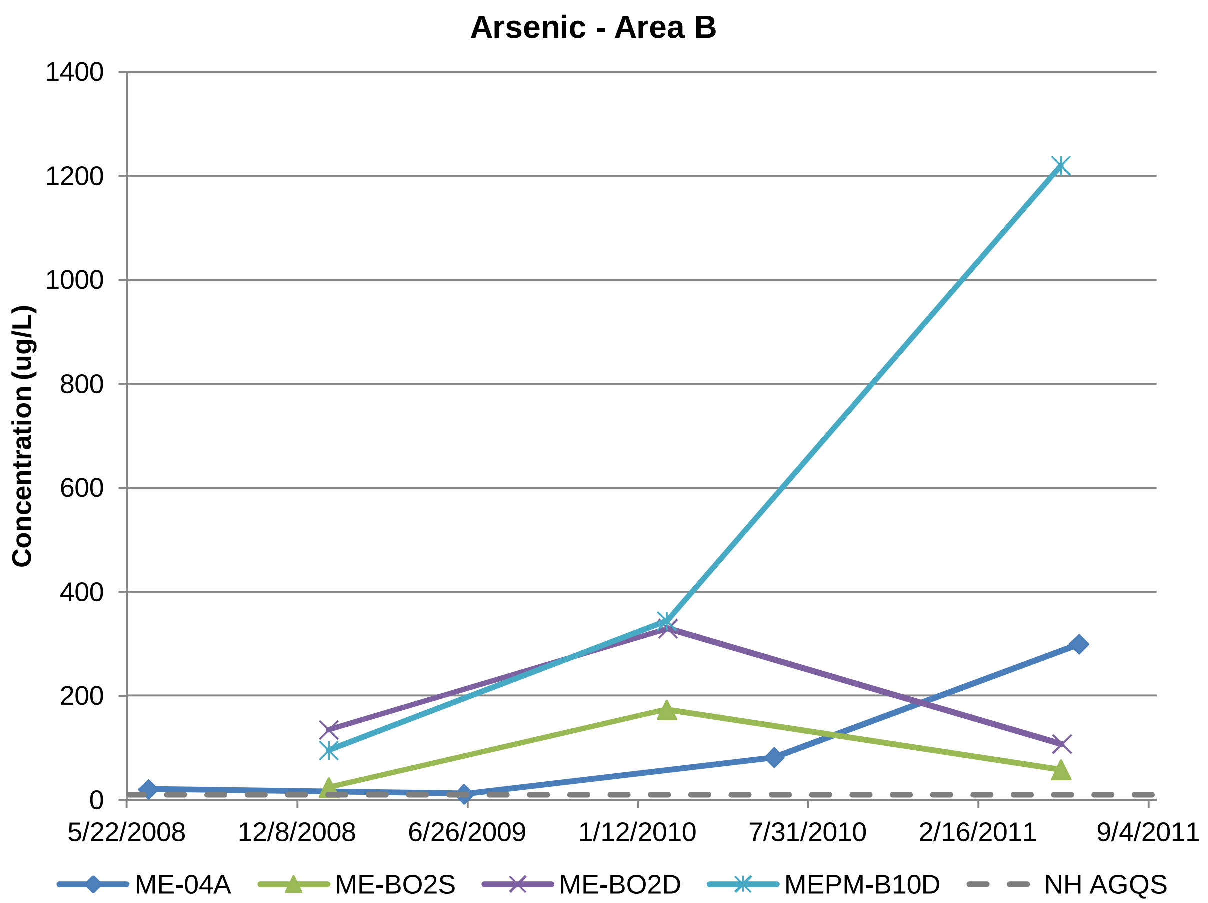


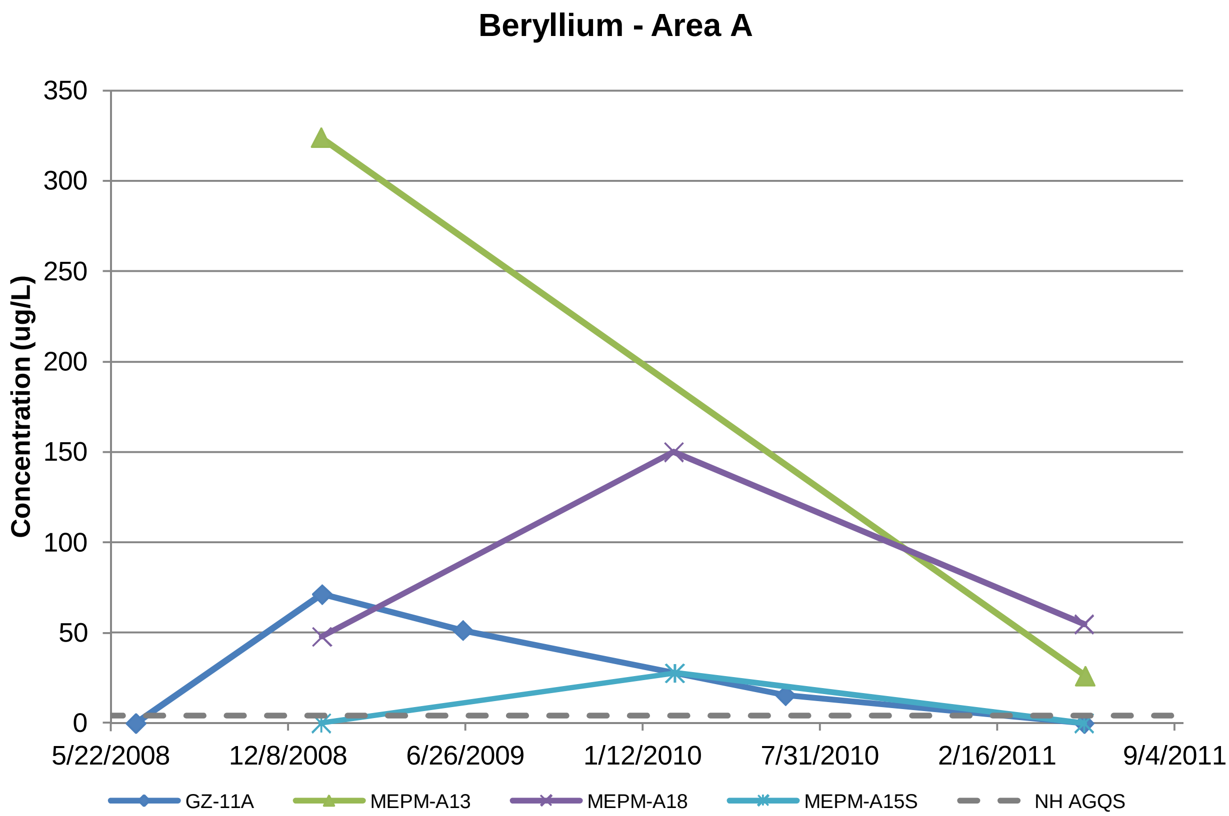
Total Metals versus pH in All Wells from May 2011 Performance Monitoring

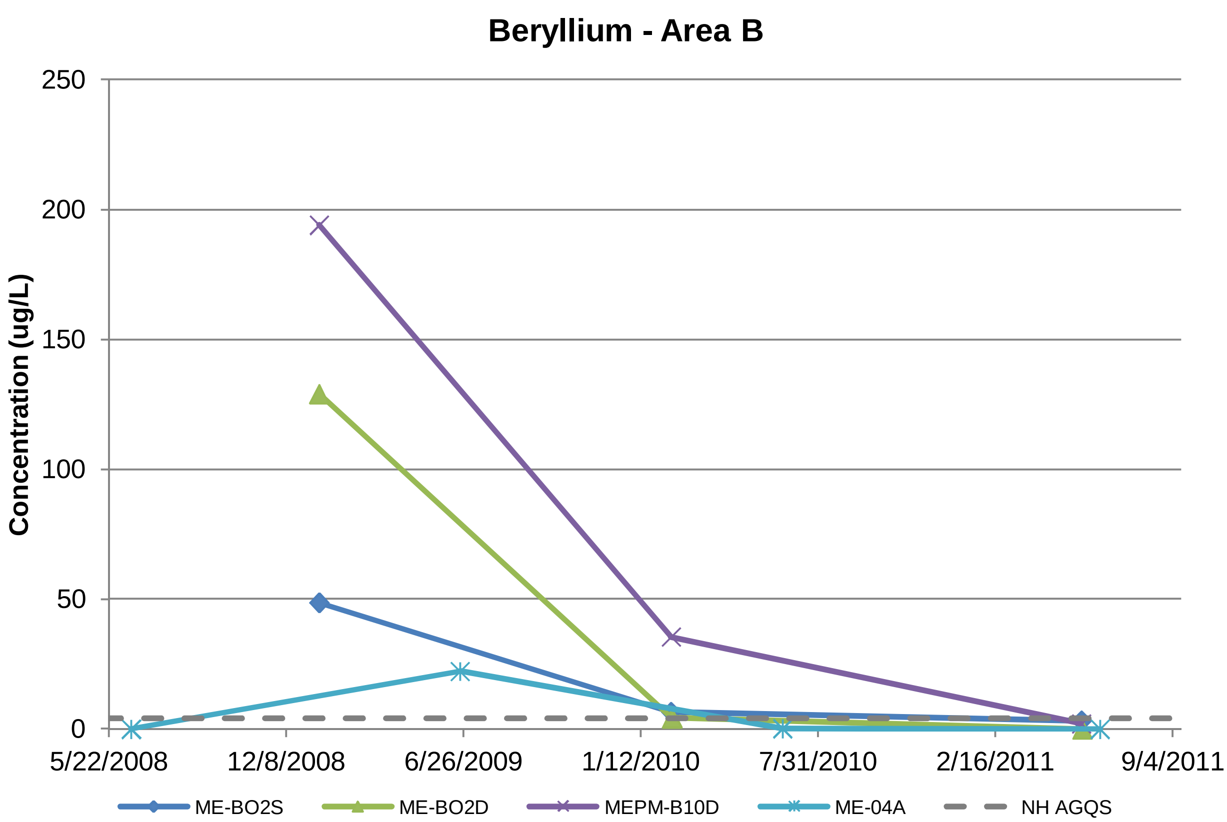


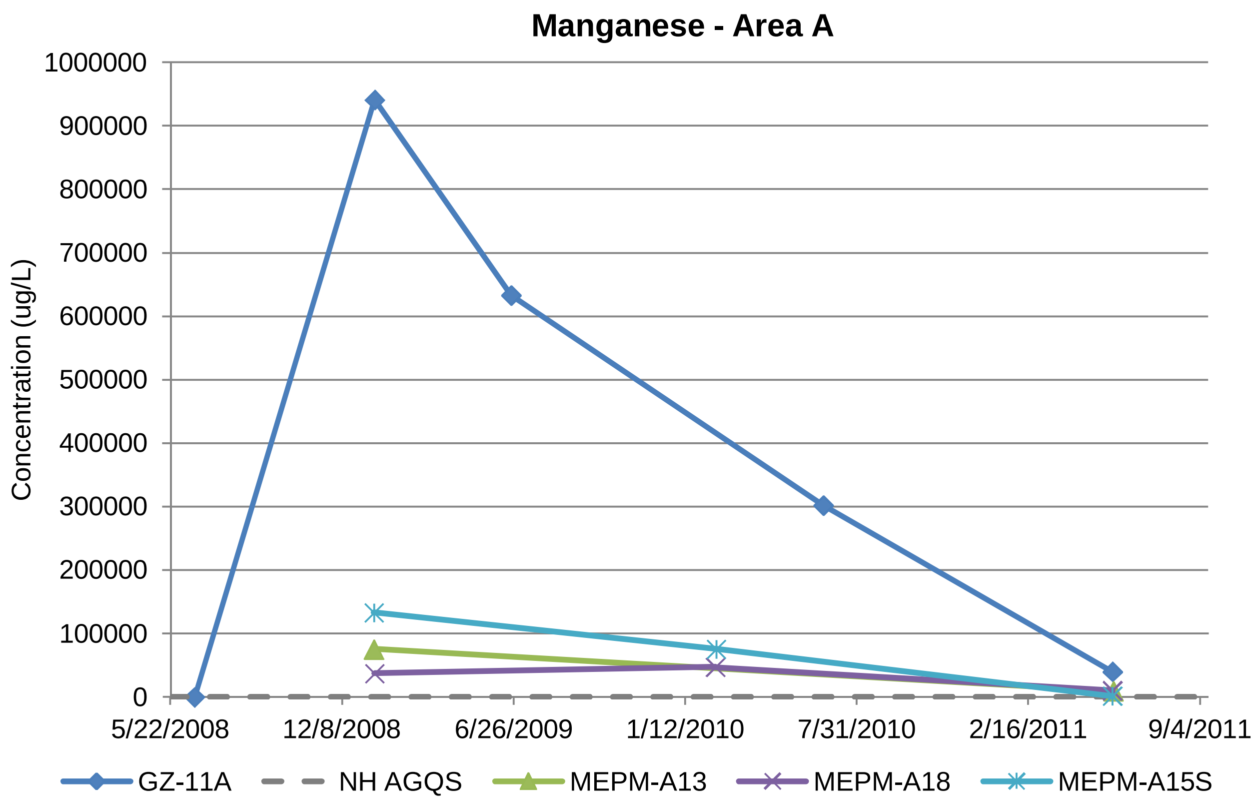


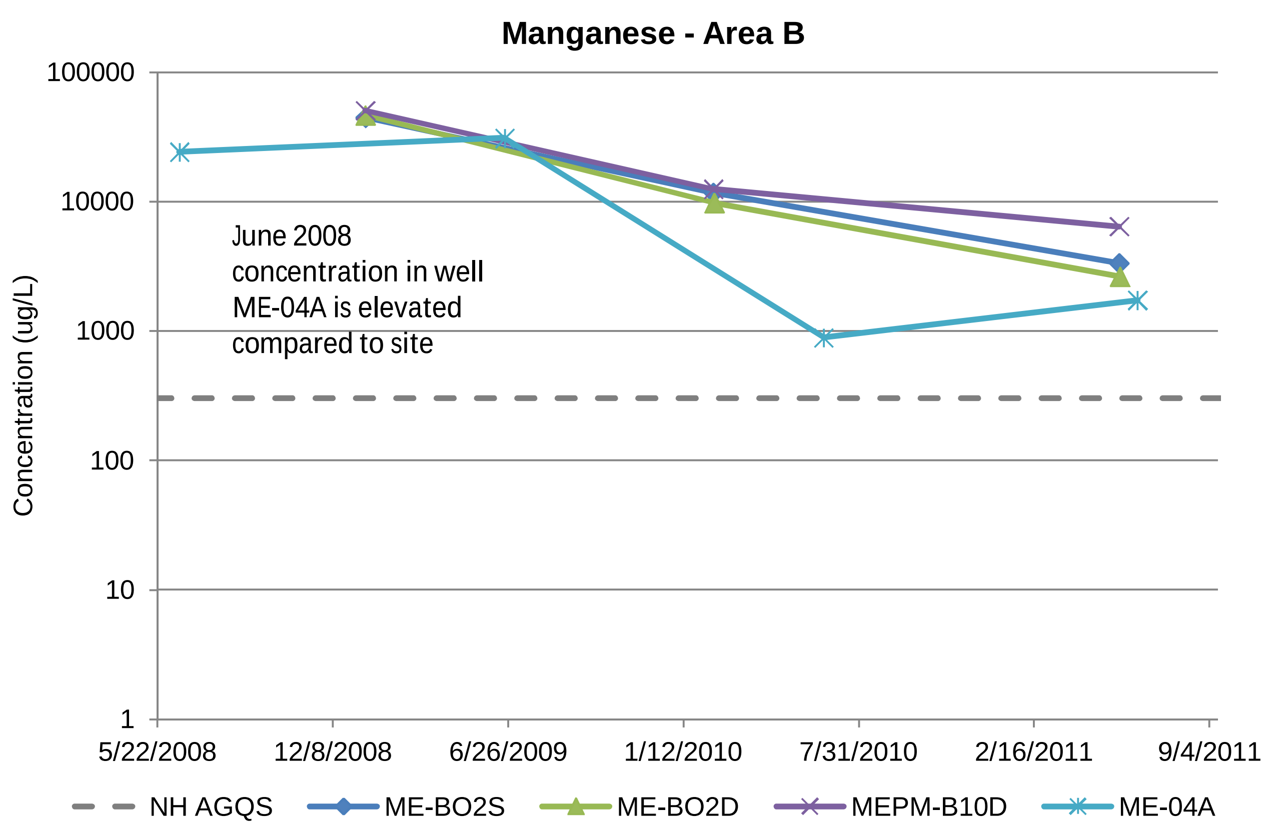

Arsenic - Area A
Concentration (ug/L)
800
700
600
500
400
300
200
100
0
5/22/2008
12/8/2008
6/26/2009
1/12/2010
7/31/2010
2/16/2011
9/4/2011
GZ-11A
MEPM-A13
MEPM-A18
MEPM-A15S
NH AGQS

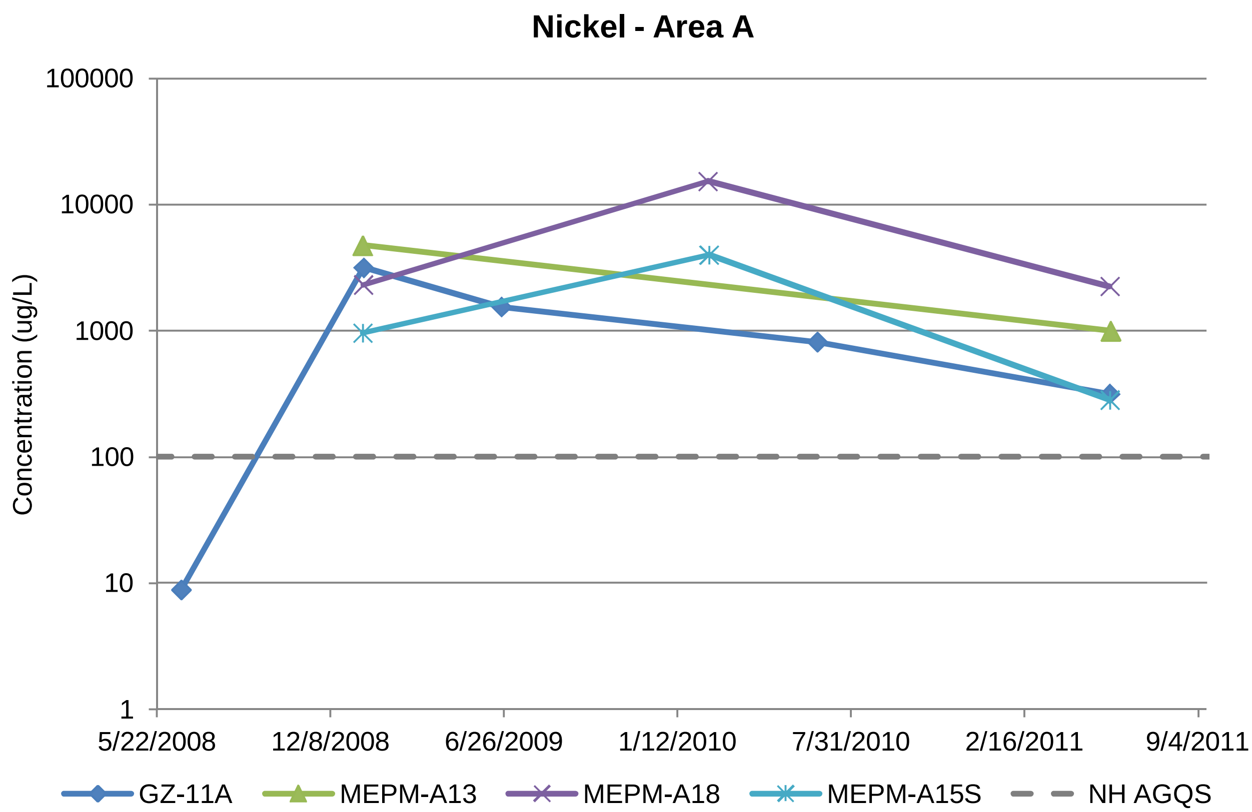

Arsenic - Area B
Concentration (ug/L)
1400
1200
1000
800
600
400
200
0
5/22/2008
12/8/2008
6/26/2009
1/12/2010
7/31/2010
2/16/2011
9/4/2011
ME-04A
ME-BO2S
ME-BO2D
MEPM-B10D
NH AGQS

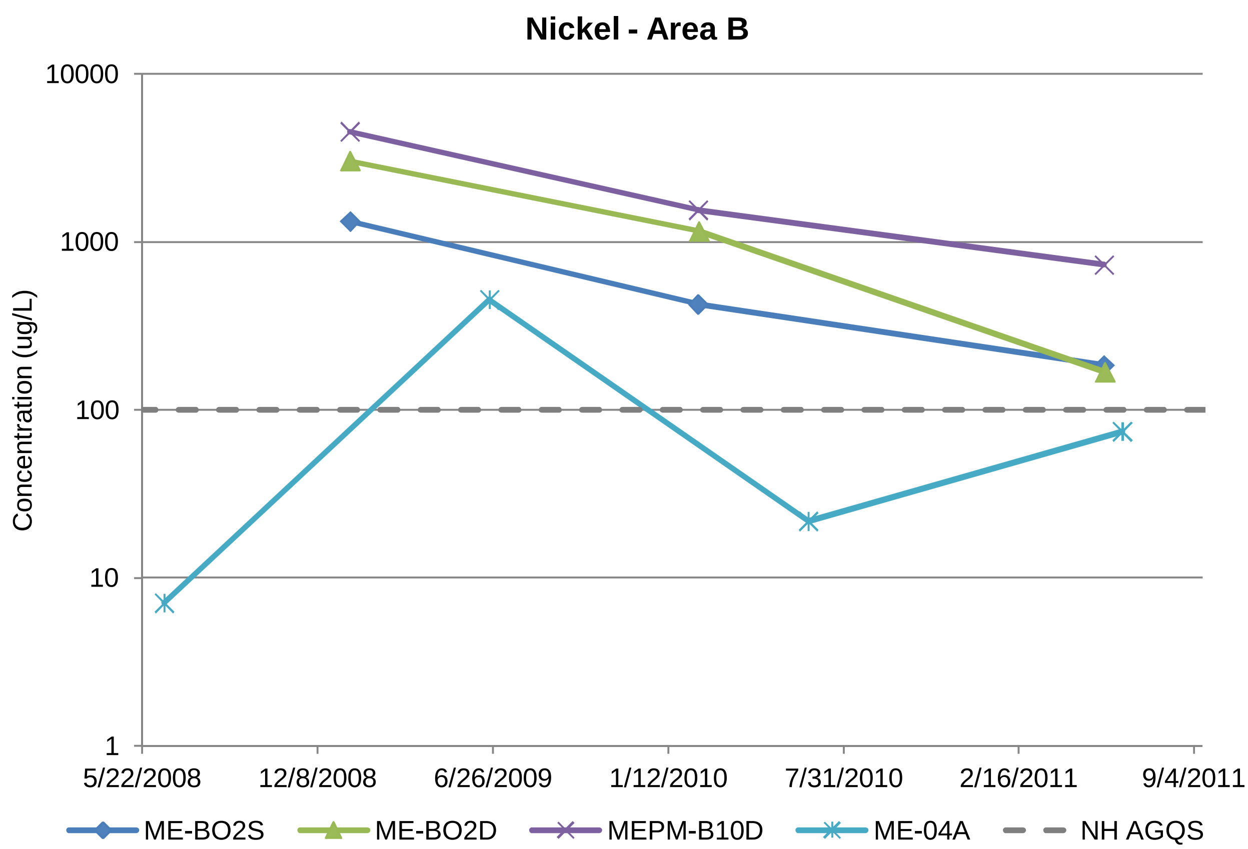

Beryllium - Area A
Concentration (ug/L)
350
300
250
200
150
100
50
0
5/22/2008
12/8/2008
6/26/2009
1/12/2010
7/31/2010
2/16/2011
9/4/2011
GZ-11A
MEPM-A13
MEPM-A18
MEPM-A15S
NH AGQS

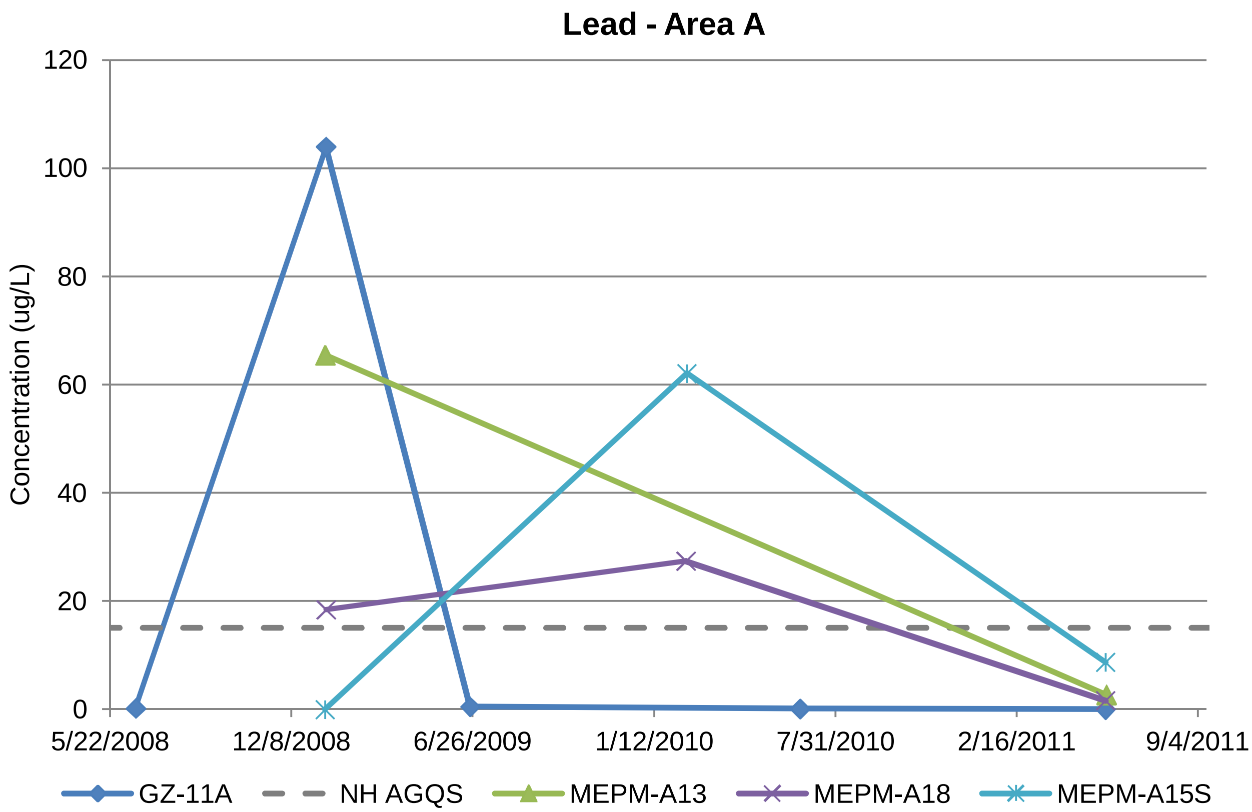

Beryllium - Area B
Concentration (ug/L)
250
200
150
100
50
0
5/22/2008
12/8/2008
6/26/2009
1/12/2010
7/31/2010
2/16/2011
9/4/2011
ME-BO2S
ME-BO2D
MEPM-B10D
ME-04A
NH AGQS

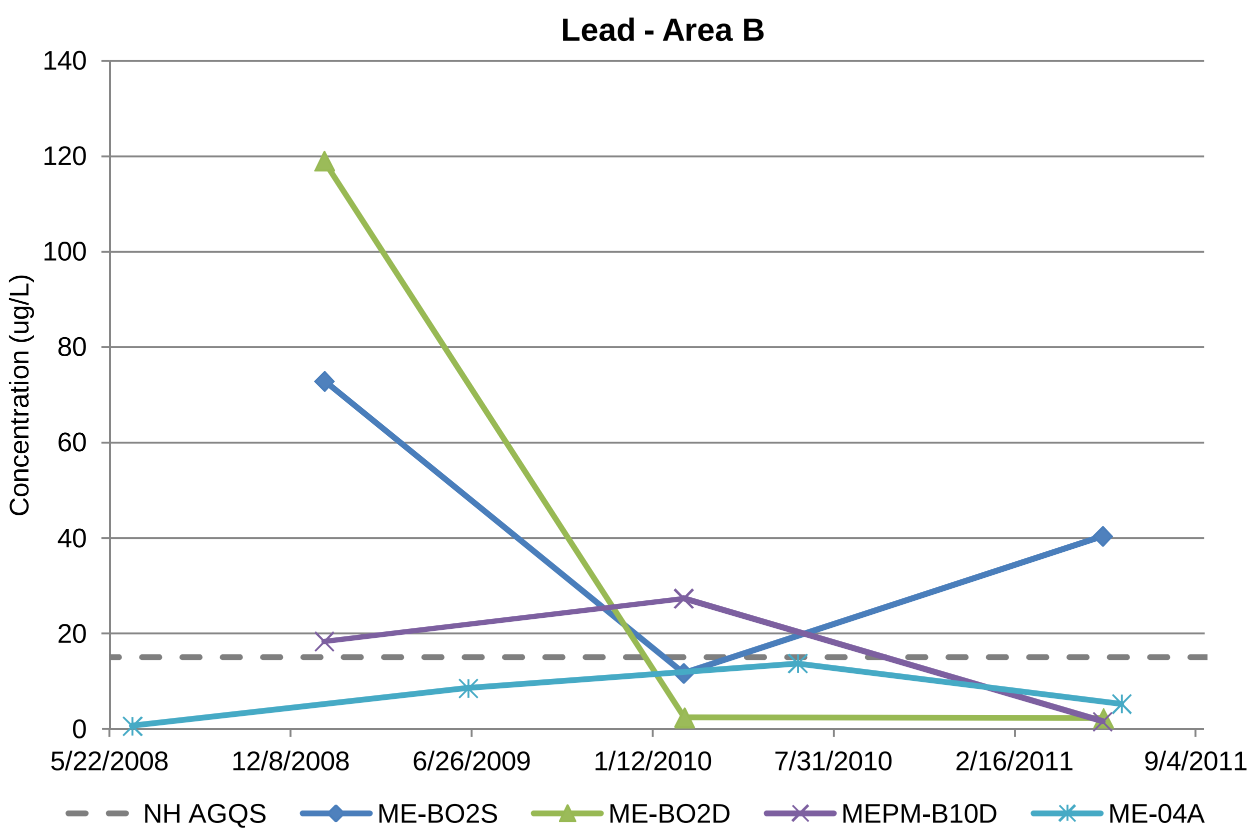

Manganese - Area A
Concentration (ug/L)
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
0
5/22/2008
12/8/2008
6/26/2009
1/12/2010
7/31/2010
2/16/2011
9/4/2011
GZ-11A
NH AGQS
MEPM-A13
MEPM-A18
MEPM-A15S

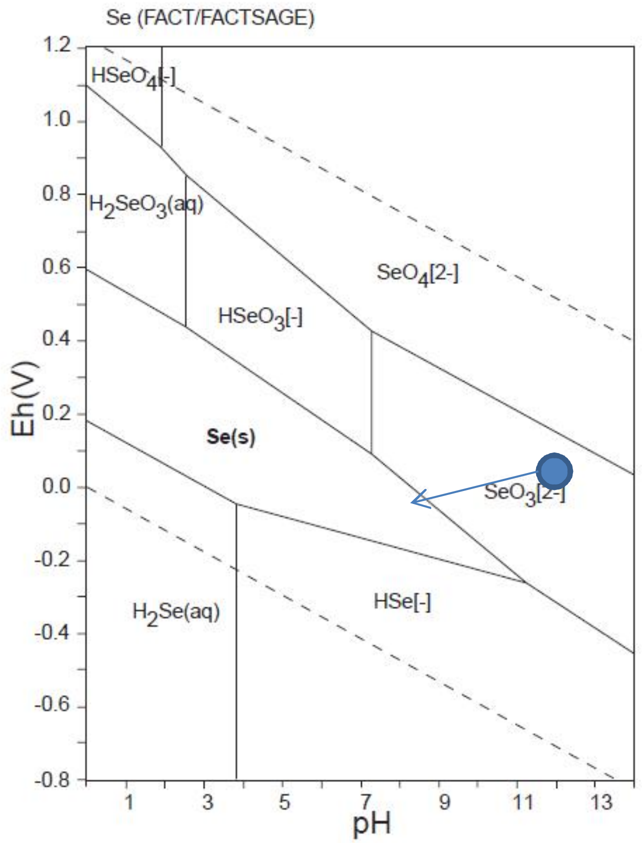

Manganese - Area B
Concentration (ug/L)
100000
10000
1000
100
10
1
June 2008
concentration in well
ME-04A is elevated
compared to site
5/22/2008
12/8/2008
6/26/2009
1/12/2010
7/31/2010
2/16/2011
9/4/2011
NH AGQS
ME-BO2S
ME-BO2D
MEPM-B10D
ME-04A

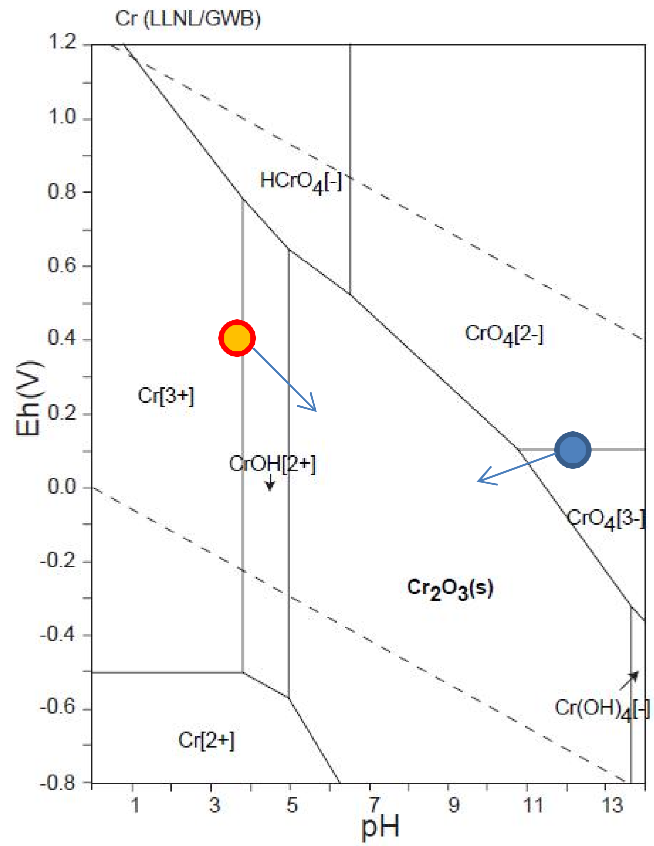

Nickel - Area A
Concentration (ug/L)
100000
10000
1000
100
10
1
5/22/2008
12/8/2008
6/26/2009
1/12/2010
7/31/2010
2/16/2011
9/4/2011
GZ-11A
MEPM-A13
MEPM-A18
MEPM-A15S
NH AGQS


Nickel - Area B
Concentration (ug/L)
10000
1000
100
10
1
5/22/2008
12/8/2008
6/26/2009
1/12/2010
7/31/2010
2/16/2011
9/4/2011
ME-BO2S
ME-BO2D
MEPM-B10D
ME-04A
NH AGQS


Lead - Area A
Concentration (ug/L)
120
100
80
60
40
20
0
5/22/2008
12/8/2008
6/26/2009
1/12/2010
7/31/2010
2/16/2011
9/4/2011
GZ-11A
NH AGQS
MEPM-A13
MEPM-A18
MEPM-A15S


Lead - Area B
Concentration (ug/L)
140
120
100
80
60
40
20
0
5/22/2008
12/8/2008
6/26/2009
1/12/2010
7/31/2010
2/16/2011
9/4/2011
NH AGQS
ME-BO2S
ME-BO2D
MEPM-B10D
ME-04A





MEPM-15D (May 2011) – pH is trending downward in this well

MEPM-A18 (May 2011) – pH is trending upward and ORP is trending downward in this well

Source: Atlas of Eh-pH diagrams
Geological Survey of Japan Open File Report No.419
National Institute of Advanced Industrial Science and Technology
Naoto TAKENO
May 2005

Alliance Technologies, LLC
1 Deer Park Drive, Suite D
Monmouth Jct., NJ 08852
www.alliancetechgroup.com
p:732.355.1234 / 877.962.5993

Order ID: 20110115
Order Date: 4/18/2011

Requestor: Don Lapham
FMC / AOD / Tonawanda

Bill To: Don Lapham
River Rd. & Sawyer Ave.
Tonawanda NY

Project :
PO/Billing #: 6500181393
Matrix: Peroxides (solid)

Comments: 1st Q 2011 persulfates (3): ICP, heavy metals by ICPMS; Cl by UVVis and Hg by ICPMS with 10 ppb DL for Na persulfate only , Cr and Pb by ICPMS for Na and K persulfate only; RAI (residue after ignition) for ammonium persulfate only, Cu by ICP-OES for all three persulfates

20110115-02 Sodium Persulfate 11151-1

Ag	ICPMS	ppm	ICP	
Ag	<0.1	ppm	ICPMS	
Al	<0.5	ppm	ICP	
As	ICPMS	ppm	ICP	
As	<0.1	ppm	ICPMS	
Au	<0.5	ppm	ICP	
B	13.7	ppm	ICP	
Ba	<0.5	ppm	ICP	
Be	<0.5	ppm	ICP	
Bi	ICPMS	ppm	ICP	
Bi	<0.05	ppm	ICPMS	
Ca	8.21	ppm	ICP	
Cd	ICPMS	ppm	ICP	
Cd	<0.1	ppm	ICPMS	
Chloride	<5	ppm	WET	
Cobalt	<0.5	ppm	ICP	
Cr	<0.1	ppm	ICP	ICPMS
Cu	<0.5	ppm	ICP	
Cu	3.8	ppm	ICPMS	
Fe	<0.5	ppm	ICP	
Ga	<0.5	ppm	ICP	
Hg	ICPMS	ppm	ICP	
Hg	<0.1	ppm	ICPMS	
K	467	ppm	ICP	
Li	0.86	ppm	ICP	
Mg	0.87	ppm	ICP	
Mn	<0.25	ppm	ICP	

Alliance Technologies, LLC
1 Deer Park Drive, Suite D
Monmouth Jct., NJ 08852
www.alliancetechgroup.com
p:732.355.1234 / 877.962.5993

Order ID: 20110115
Order Date: 4/18/2011

Requestor: Don Lapham
FMC / AOD / Tonawanda

Bill To: Don Lapham
River Rd. & Sawyer Ave.
Tonawanda NY

Project :
PO/Billing #: 6500181393
Matrix: Peroxides (solid)

Comments: 1st Q 2011 persulfates (3): ICP, heavy metals by ICPMS; Cl by UVVis and Hg by ICPMS with 10 ppb DL for Na persulfate only , Cr and Pb by ICPMS for Na and K persulfate only; RAI (residue after ignition) for ammonium persulfate only, Cu by ICP-OES for all three persulfates

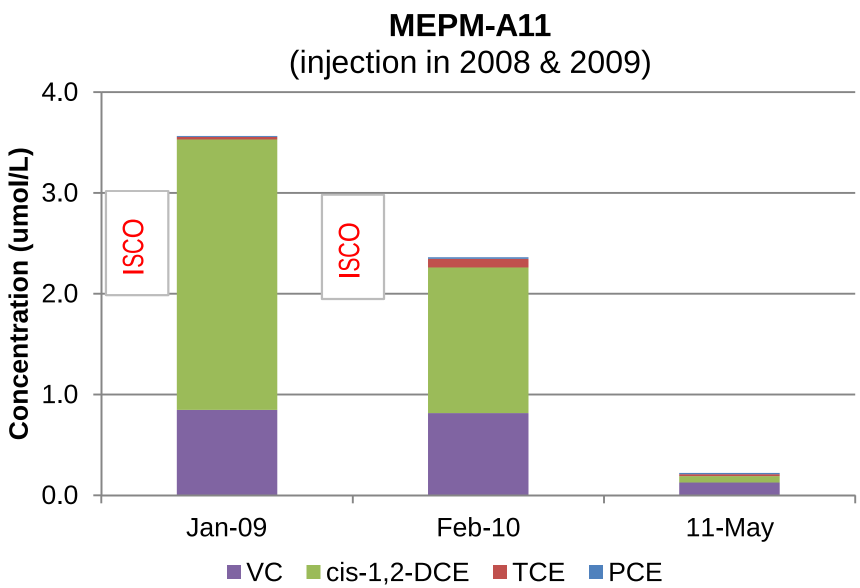
20110115-02 Sodium Persulfate 11151-1

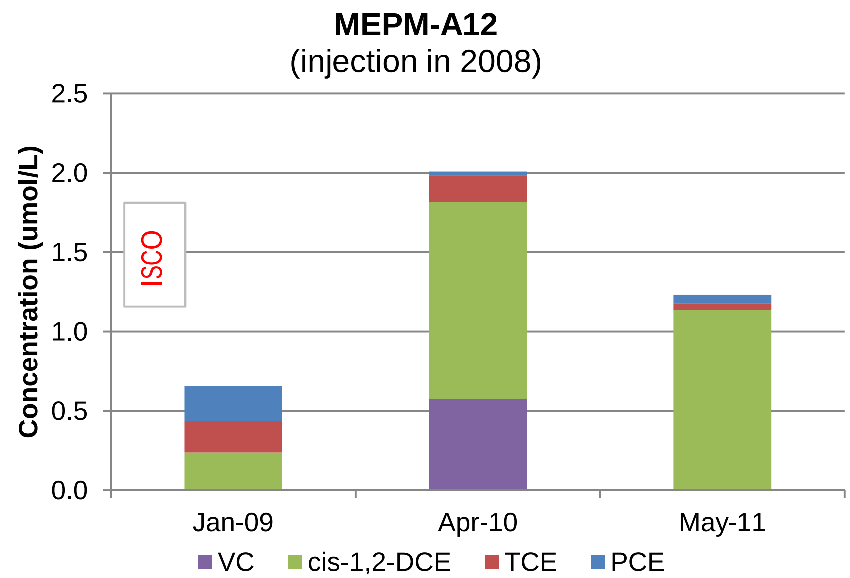
Mo	<1	ppm	ICP
Na		ppm	ICP
Ni	<0.5	ppm	ICP
P	65.6	ppm	ICP
Pb	ICPMS	ppm	ICP
Pb	<0.1	ppm	ICPMS
Pd	<5	ppm	ICP
Pt	<5	ppm	ICP
S		ppm	ICP
Sb	ICPMS	ppm	ICP
Sb	<0.1	ppm	ICPMS
Se	<5	ppm	ICP
Si	<2.5	ppm	ICP
Sn	ICPMS	ppm	ICP
Sn	<0.1	ppm	ICPMS
Sr	<0.25	ppm	ICP
Th	<25	ppm	ICP
Ti	<0.5	ppm	ICP
Tl	<25	ppm	ICP
U	<2.5	ppm	ICP
V	<0.5	ppm	ICP
W	<5	ppm	ICP
Zn	<0.5	ppm	ICP
Zr	<0.5	ppm	ICP

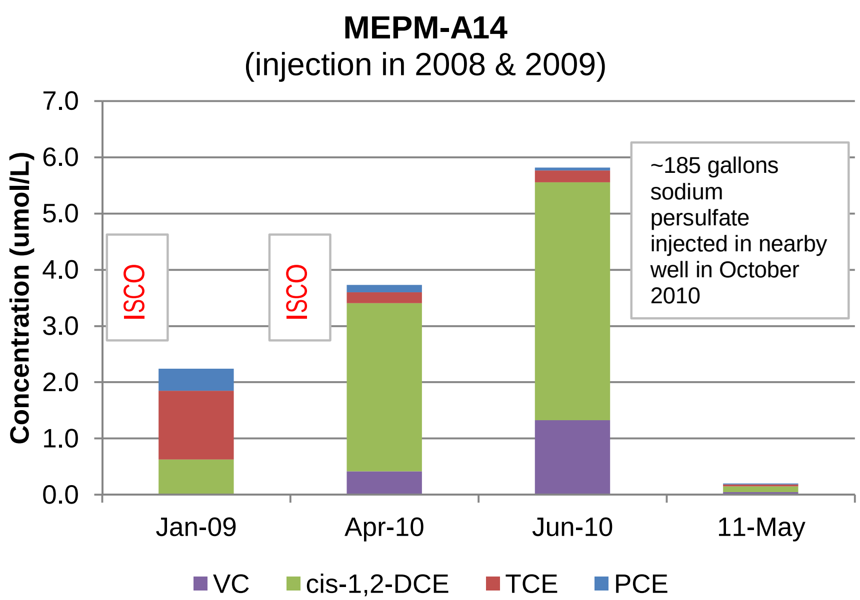
Appendix G

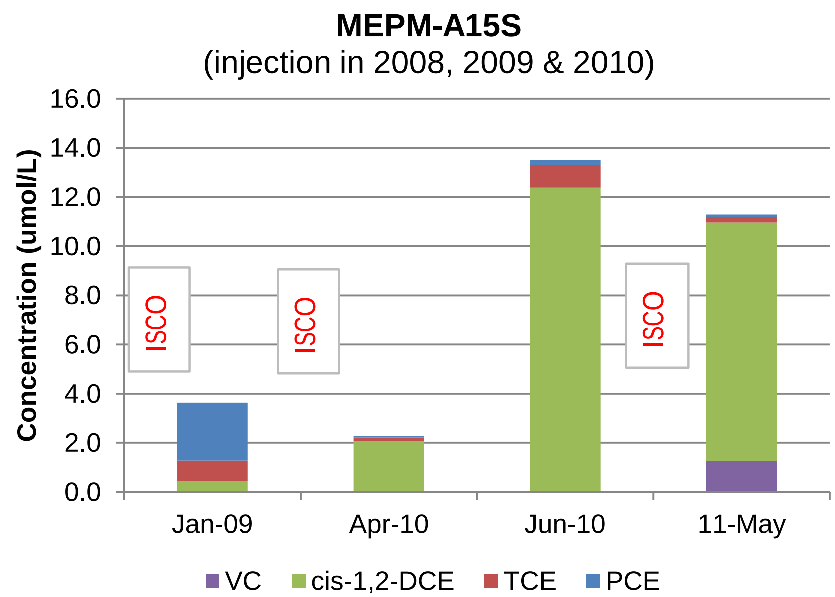
Reductive Dechlorination in Site Groundwater After ISCO Injections

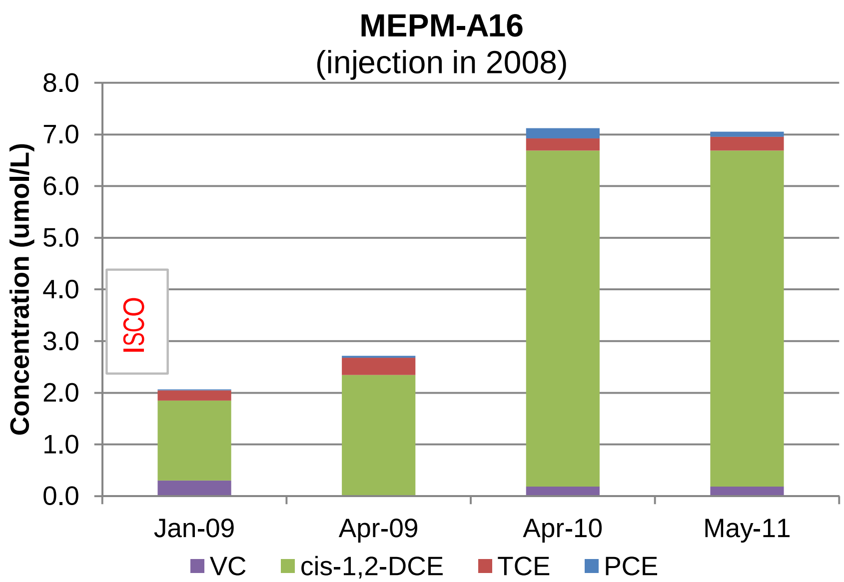
Reduction in Chlorinated Ethenes After ISCO - Area A

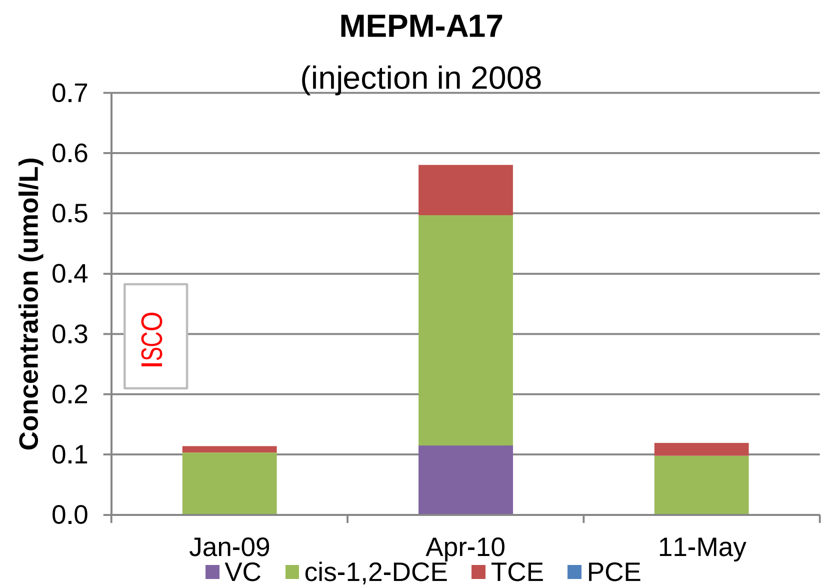









MEPM-A16
(injection in 2008)
Concentration (umol/L)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
ISCO
Jan-09
Apr-09
Apr-10
May-11
VC
cis-1,2-DCE
TCE
PCE


MEPM-A17
(injection in 2008
Concentration (umol/L)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
ISCO
Jan-09
Apr-10
11-May
VC
cis-1,2-DCE
TCE
PCE

Appendix H

Summary Tables from Oxidation Injection Summary Reports [FS Engineers, 2008; Watermark 2009, 2010]

Ottati & Goss Superfund Site - Operable Unit 3
Summary of Injection Activities Completed
July 15 through August 1, 2008

Injection Area A					
Injection Well ID	**Injection Area**	**Type**	**(ft bgs)**	**Start Date**	**Finish Date**
A-A04	A-1	Injection	7-19	07/29/08	07/30/08
A-A06	A-1	Injection	7-19	07/29/08	07/30/08
A-B03	A-1	Injection	7-19	07/31/08	07/31/08
A-D02	A-1	Injection	7-19	07/31/08	08/01/08
A-F03	A-1	Injection	7-19	07/30/08	07/31/08
A-H02	A-1	Injection	7-19	07/29/08	07/30/08
A-B10	A-3	Temporary	15-26	07/31/08	07/31/08
A-B11	A-3	Temporary	15-26	07/30/08	07/30/08
A-B12	A-3	Temporary	15-26	07/25/08	07/29/08
A-D11	A-3	Temporary	15-26	07/28/08	07/28/08
A-F11	A-3	Temporary	15-26	07/30/08	07/30/08
A-F12	A-3	Temporary	15-26	07/24/08	07/25/08
A-F13	A-3	Temporary	15-26	07/30/08	07/30/08
A-H11	A-3	Temporary	15-26	07/28/08	07/29/08
A-H12	A-3	Temporary	15-26	07/31/08	07/31/08
A-H13	A-3	Temporary	15-26	07/25/08	07/28/08
A-I12	A-3	Temporary	15-26	07/24/08	07/24/08
A-I-13	A-3	Temporary	15-26	07/30/08	07/30/08
A-B14	A-4	Temporary	16-29	07/22/08	07/23/08
A-D14	A-4	Temporary	16-29	07/24/08	07/25/08
A-D15	A-4	Temporary	16-29	07/29/08	07/29/08
A-D16	A-4	Temporary	16-29	07/22/08	07/23/08
A-F14	A-4	Temporary	16-29	07/22/08	07/23/08
A-F15	A-4	Temporary	16-29	07/25/08	07/25/08
A-F16	A-4	Temporary	16-29	07/30/08	07/30/08
A-H16	A-4	Temporary	16-29	07/31/08	07/31/08
A-I14	A-4	Temporary	16-29	07/24/08	07/25/08
A-I15	A-4	Temporary	16-29	07/28/08	07/28/08
A-I-16	A-4	Temporary	16-29	07/30/08	07/30/08
A-J15	A-4	Temporary	16-29	07/31/08	07/31/08
A-J16	A-4	Temporary	16-29	08/01/08	08/01/08
A-K16	A-4	Temporary	16-29	08/01/08	08/01/08
A-D17	A-5	Temporary	16-31	07/29/08	07/29/08
A-F17	A-5	Temporary	16-31	07/25/08	07/28/08
A-H17	A-5	Temporary	16-31	07/29/08	07/29/08
A-I17	A-7	Temporary	15-32	08/01/08	08/01/08
Injection Points Completed:			36		

Injection Area B					
Injection Well ID	**Injection Area**	**Type**	**(ft bgs)**	**Start Date**	**Finish Date**
B-A02	B-1	Temporary	11-31	07/23/08	07/24/08
B-B01	B-1	Temporary	11-31	07/25/08	07/28/08
B-C00	B-1	Temporary	11-31	07/23/08	07/23/08
B-C02	B-1	Temporary	11-31	07/30/08	07/30/08
B-A04	B-2	Temporary	9-29	07/24/08	07/25/08
B-G04	B-2	Injection	9-29	07/24/08	07/24/08
B-G00	B-3	Temporary	15-29	07/23/08	07/23/08
B-I00	B-3	Temporary	15-29	07/28/08	07/28/08
B-K00	B-3	Temporary	15-29	08/01/08	08/04/08
B-K02	B-3	Temporary	15-29	07/28/08	07/28/08
B-L01	B-3	Temporary	15-29	07/31/08	07/31/08
B-M00	B-3	Temporary	15-29	07/28/08	07/28/08
B-I04D	B-4	Injection	17-27	08/01/08	08/04/08
Injection Points Completed:			13		

Summary of ISCO Injection Quantities
Ottati Goss Superfund Site

Ottati & Goss Superfund Site - Operable Unit 3
Summary of Injection Activities Completed
August 1 through August 30, 2008

Injection Area A					
Injection Well ID	**Injection Area**	**Type**	**(ft bgs)**	**Start Date**	**Finish Date**
A-H08D	A-2	Injection	6.5-22.5	08/01/08	08/01/08
A-A08D	A-2	Injection	6.5-22.5	08/04/08	08/04/08
A-A08S	A-2	Injection	6.5-22.5	08/04/08	08/04/08
A-D08D	A-2	Injection	6.5-22.5	08/04/08	08/04/08
A-D08S	A-2	Injection	6.5-22.5	08/01/08	08/04/08
A-F19	A-6	Temporary	18-31	08/04/08	08/04/08
A-I19	A-7	Temporary	15-32	08/04/08	08/04/08
A-J18	A-7	Temporary	15-32	08/04/08	08/04/08
A-K18	A-8	Temporary	12-34	08/01/08	08/04/08
A-B05	A-1	Injection	7-19	08/04/08	08/05/08
A-D13	A-3	Temporary	15-26	08/04/08	08/05/08
A-H10	A-3	Temporary	15-26	08/04/08	08/05/08
A-B07S	A-2	Injection	6.5-22.5	08/05/08	08/06/08
A-B09	A-3	Temporary	15-26	08/06/08	08/06/08
A-B13	A-3	Temporary	15-26	07/30/08	08/06/08
A-F07S	A-2	Injection	6.5-22.5	08/05/08	08/06/08
A-I24	A-7	Temporary	15-32	08/26/08	08/06/08
A-B07D	A-2	Injection	6.5-22.5	08/05/08	08/07/08
A-B08	A-2	Temporary	6.5-22.5	08/07/08	08/07/08
A-E23	A-6	Temporary	18-31	08/07/08	08/07/08
A-F07D	A-2	Injection	6.5-22.5	08/06/08	08/07/08
A-F09	A-3	Temporary	15-26	08/06/08	08/07/08
A-H07	A-2	Temporary	6.5-22.5	08/07/08	08/07/08
A-K23	A-8	Temporary	12-34	08/07/08	08/07/08
A-H06D	A-2	Injection	6.5-22.5	08/07/08	08/08/08
A-H09	A-3	Temporary	15-26	08/08/08	08/08/08
A-D06D	A-2	Injection	6.5-22.5	08/07/08	08/11/08
A-D09	A-3	Temporary	15-26	08/08/08	08/11/08
A-F08	A-2	Temporary	6.5-22.5	08/11/08	08/11/08
A-F10	A-3	Temporary	15-26	08/08/08	08/11/08
A-H08S	A-2	Injection	6.5-22.5	08/01/08	08/11/08
A-D12	A-3	Temporary	15-26	07/31/08	08/12/08
A-F06	A-2	Temporary	6.5-22.5	08/11/08	08/12/08
A-D06S	A-2	Injection	6.5-22.5	08/11/08	08/13/08
A-H06S	A-2	Injection	6.5-22.5	08/11/08	08/13/08
A-A07	A-2	Temporary	6.5-22.5	08/12/08	08/14/08
A-B06	A-2	Temporary	6.5-22.5	08/11/08	08/14/08
A-D10	A-3	Temporary	15-26	08/06/08	08/14/08
A-D05	A-2	Temporary	6.5-22.5	08/14/08	08/15/08
A-D07	A-2	Temporary	6.5-22.5	08/12/08	08/15/08
A-H05	A-2	Temporary	6.5-22.5	08/14/08	08/15/08
A-D21	A-6	Temporary	18-31	08/20/08	08/20/08
A-I22	A-7	Temporary	15-32	08/20/08	08/20/08
A-D22	A-6	Temporary	18-31	08/20/08	08/21/08
A-I23	A-7	Temporary	15-32	08/21/08	08/21/08
A-J20	A-7	Temporary	15-32	08/20/08	08/21/08

Summary of ISCO Injection Quantities
Ottati Goss Superfund Site

A-J24	A-7	Temporary	15-32	08/20/08	08/21/08
A-D19	A-6	Temporary	18-31	08/21/08	08/22/08
A-F05D	A-2	Injection	6.5-22.5	08/21/08	08/22/08
A-F05S	A-2	Injection	6.5-22.5	08/13/08	08/22/08
A-G23	A-6	Temporary	18-31	08/22/08	08/22/08
A-H21	A-6	Temporary	18-31	08/21/08	08/22/08
A-J23	A-7	Temporary	15-32	08/22/08	08/22/08
A-B01	A-1	Injection	7-19	08/25/08	08/25/08
A-D04D	A-1	Injection	7-19	08/25/08	08/25/08
A-D04S	A-1	Injection	7-19	08/25/08	08/25/08
A-F01	A-1	Injection	7-19	08/25/08	08/25/08
A-H04D	A-2	Injection	6.5-22.5	08/22/08	08/25/08
A-H04S	A-2	Injection	6.5-22.5	08/25/08	08/25/08
A-H22	A-6	Temporary	18-31	08/25/08	08/25/08
A-K20	A-8	Temporary	12-34	08/25/08	08/25/08
A-C00	A-1	Temporary	7-19	08/26/08	08/26/08
A-E00	A-1	Temporary	7-19	08/26/08	08/26/08
A-F21	A-6	Temporary	18-31	08/26/08	08/26/08
A-F22	A-6	Temporary	18-31	08/25/08	08/26/08
A-G00	A-1	Temporary	7-19	08/26/08	08/26/08
A-H01	A-1	Temporary	7-19	08/26/08	08/26/08
A-H19	A-6	Temporary	18-31	08/26/08	08/26/08
A-I21	A-7	Temporary	15-32	08/25/08	08/26/08
A-J22	A-7	Temporary	15-32	08/26/08	08/26/08
A-A05	A-1	Temporary	7-19	08/27/08	08/27/08
A-B02	A-1	Temporary	7-19	08/26/08	08/27/08
A-D01	A-1	Temporary	7-19	08/26/08	08/27/08
A-D03	A-1	Temporary	7-19	08/27/08	08/27/08
A-F02	A-1	Temporary	7-19	08/26/08	08/27/08
A-F04	A-2	Temporary	6.5-22.5	08/27/08	08/27/08
A-H03	A-2	Temporary	6.5-22.5	08/26/08	08/27/08
A-K22	A-8	Temporary	12-34	08/27/08	08/27/08
A-B04	A-1	Temporary	7-19	08/27/08	08/28/08
A-H14	A-4	Temporary	16-29	08/27/08	08/28/08
A-H15	A-4	Temporary	16-29	08/27/08	08/28/08
Injection Points Completed:			81		

Injection Area B					
Injection Well ID	**Injection Area**	**Type**	**(ft bgs)**	**Start Date**	**Finish Date**
B-B03	B-1	Temporary	11-31	08/05/08	08/06/08
B-E00	B-1	Temporary	11-31	07/25/08	08/04/08
B-J01	B-3	Temporary	15-29	08/05/08	08/06/08
B-K04D	B-4	Injection	5-27	08/05/08	08/06/08
B-D01D	B-1	Injection	11-31	07/29/08	08/08/08
B-E02D	B-2	Injection	9-29	08/08/08	08/11/08
B-G04D	B-2	Injection	9-29	08/06/08	08/11/08
B-M04D	B-4	Injection	5-27	08/06/08	08/11/08
B-I04S	B-4	Injection	5-27	07/29/08	08/12/08
B-O04D	B-5	Injection	5-24	08/11/08	08/12/08
B-C04	B-2	Temporary	9-29	08/04/08	08/13/08
B-J03	B-4	Temporary	5-27	08/13/08	08/13/08
B-O04S	B-5	Injection	5-24	08/12/08	08/13/08
B-B05	B-2	Temporary	9-29	07/25/08	08/20/08
B-D01S	B-1	Injection	11-31	08/14/08	08/20/08

Summary of ISCO Injection Quantities
Ottati Goss Superfund Site

B-D03	B-2	Temporary	9-29	07/24/08	08/20/08
B-G02	B-2	Temporary	9-29	07/25/08	08/20/08
B-K04S	B-4	Injection	5-27	07/29/08	08/20/08
B-F01	B-3	Temporary	15-29	07/31/08	08/22/08
B-Q04	B-5	Temporary	5-24	08/21/08	08/22/08
B-S02	B-6	Temporary	4-18	08/20/08	08/22/08
B-T01	B-6	Temporary	4-18	08/22/08	08/26/08
B-H03	B-2	Temporary	9-29	08/27/08	08/27/08
B-O00	B-4	Temporary	5-27	08/01/08	08/27/08
B-P01	B-5	Temporary	5-24	07/29/08	08/27/08
B-J05	B-4	Temporary	5-27	08/27/08	08/28/08
B-M02	B-4	Temporary	5-27	08/04/08	08/28/08
B-R03	B-6	Temporary	4-18	08/28/08	08/28/08
B-L03D	B-4	Temporary	12 - 17	08/28/08	08/29/08
B-H01	B-3	Temporary	15-29	08/04/08	09/02/08
B-I02	B-2	Temporary	9-29	07/31/08	09/02/08
B-L03S	B-4	Temporary	5 - 12.5	08/29/08	09/02/08
B-N01D	B-4	Temporary	5-27	08/06/08	09/02/08
B-N05	B-5	Temporary	5-24	08/28/08	09/02/08
B-P05	B-5	Temporary	5-24	09/02/08	09/02/08
B-Q02D	B-5	Injection	16 - 20	09/02/08	09/03/08
Injection Points Completed:			36		

Injection Area C					
Injection Well ID	**Injection Area**	**Type**	**(ft bgs)**	**Start Date**	**Finish Date**
C-A08	C-3	Temporary	4-23	Deleted	Deleted
C-A09	C-3	Temporary	4-23	Deleted	Deleted
C-B04	C-3	Temporary	4-23	08/14/08	08/20/08
C-B06D	C-3	Temporary	4-23	08/08/08	08/08/08
C-B06S	C-3	Temporary	4-23	08/08/08	08/08/08
C-B08D	C-3	Temporary	4-23	08/14/08	08/14/08
C-B08S	C-3	Temporary	4-23	08/14/08	08/14/08
C-B09D	C-3	Temporary	4-23	08/08/08	08/08/08
C-B09S	C-3	Temporary	4-23	08/11/08	08/11/08
C-B10S	C-3	Temporary	4-23	08/12/08	08/12/08
C-B10D	C-3	Temporary	4-23	08/12/08	08/12/08
C-C00	C-2	Temporary	20-25	08/07/08	08/07/08
C-C01	C-2	Temporary	20-25	08/07/08	08/07/08
C-C02	C-2	Temporary	20-25	08/07/08	08/07/08
C-C03	C-2	Temporary	20-25	08/07/08	08/07/08
C-C06D	C-3	Temporary	4-23	08/08/08	08/08/08
C-C06S	C-3	Temporary	4-23	08/08/08	08/08/08
C-C08D	C-3	Temporary	4-23	08/08/08	08/08/08
C-C08S	C-3	Temporary	4-23	08/11/08	08/11/08
C-C09S	C-3	Injection	6 - 16	08/11/08	08/12/08
C-C09D	C-3	Injection	18 - 23	08/11/08	08/12/08
C-D00	C-4	Temporary	16-23	08/11/08	08/11/08
C-D01	C-2	Temporary	20-25	08/11/08	08/11/08
C-D02	C-2	Temporary	20-25	08/14/08	08/14/08
C-D03	C-2	Temporary	20-25	08/11/08	08/11/08
C-D05	C-2	Temporary	20-25	08/11/08	08/12/08
C-D08D	C-3	Temporary	4-23	08/12/08	08/12/08
C-D08S	C-3	Temporary	4-23	08/13/08	08/13/08

Summary of ISCO Injection Quantities
Ottati Goss Superfund Site

C-D09D	C-3	Temporary	4-23	08/13/08	08/13/08
C-D09S	C-3	Temporary	4-23	08/13/08	08/13/08
C-E00	C-4	Temporary	16-23	08/11/08	08/11/08
C-E01	C-4	Temporary	16-23	08/11/08	08/11/08
C-E02	C-2	Temporary	20-25	08/14/08	08/14/08
C-E03	C-4	Temporary	14-18	08/13/08	08/13/08
C-E05	C-4	Temporary	14-18	08/13/08	08/13/08
C-E07	C-4	Temporary	14-18	08/13/08	08/13/08
C-F00	C-4	Temporary	16-23	08/06/08	08/06/08
C-F01	C-4	Temporary	16-23	08/05/08	08/12/08
C-F02	C-4	Temporary	14-18	08/06/08	08/06/08
C-F03	C-4	Temporary	14-18	08/06/08	08/06/08
C-F05	C-4	Temporary	14-18	08/14/08	08/14/08
C-F07	C-4	Temporary	14-18	08/05/08	08/12/08
C-G03	C-4	Temporary	14-18	08/05/08	08/05/08
C-G05	C-4	Temporary	14-18	08/05/08	08/05/08
C-G07	C-4	Temporary	14-18	08/05/08	08/05/08
C-H12S	C-1	Temporary	14-24	08/20/08	08/21/08
C-H12D	C-1	Temporary	14-24	08/20/08	08/20/08
C-H14	C-1	Temporary	14-24	08/21/08	08/21/08
C-I11	C-1	Temporary	14-24	08/20/08	08/20/08
C-I13S	C-1	Temporary	14-24	08/22/08	08/22/08
C-I13D	C-1	Temporary	14-24	08/14/08	08/22/08
C-I15	C-1	Temporary	14-24	08/21/08	08/21/08
C-J13S	C-1	Temporary	14-24	08/21/08	08/21/08
C-J13D	C-1	Temporary	14-24	08/22/08	08/22/08
Injection Points Completed:			54		

Ottati & Goss Superfund Site - Operable Unit 3
Billing Summary for Current Period
August 1 through August 30, 2008

Area	CLIN	Total Number Injection Wells	Wells Completed	Percent Complete
Area A Injection	03	122	81	66.4%
Area A Activiation	06	122	81	66.4%
Area B Injection	07	68	36	52.9%
Area B Activiation	10	68	36	52.9%
Area C Injection	11	54	54	100.0%
Area C Activiation	14	54	54	100.0%

Water Usage	Gallons
Area A	92,782
Area B	26,134
Area C	21,084
Total	140,000

Ottati & Goss Superfund Site - Operable Unit 3
Summary of Injection Activities Completed
September 1 through October 1, 2008

Injection Area B					
Injection Well ID	**Injection Area**	**Type**	**(ft bgs)**	**Start Date**	**Finish Date**
B-B05D	B-2	Injection	15-22	09/09/08	09/09/08
B-D01S	B-1	Injection	10.7-20.7	09/09/08	09/09/08
B-D03	B-2	Temporary	20-25	09/04/08	09/05/08
B-D03	B-2	Injection	9-19	09/08/08	09/08/08
B-E02D	B-2	Injection	18.8-28.8	09/09/08	09/09/08
B-E02S	B-2	Injection	8.6-18.6	08/11/08	09/05/08
B-E04	B-2	Injection	9-19	09/04/08	09/08/08
B-F03D	B-2	Injection	19-27.5	07/29/08	09/08/08
B-F03S	B-2	Injection	9.2-19.2	07/29/08	09/08/08
B-F05D	B-2	Injection	15-22	09/05/08	09/08/08
B-F05S	B-2	Injection	7-15	09/08/08	09/08/08
B-G02	B-2	Injection	9.5-19.5	09/09/08	09/09/08
B-G4D	B-2	Injection	19-29	09/09/08	09/09/08
B-H01	B-3	Injection	14.5-23.5	09/09/08	09/09/08
B-H03	B-2	Injection	8-18	09/08/08	09/08/08
B-H05	B-2	Injection	9-14	09/04/08	09/05/08
B-H05	B-2	Injection	9-14	09/09/08	09/09/08
B-I04D	B-4	Injection	17-27	09/09/08	09/09/08
B-K04D	B-4	Injection	17-27	09/09/08	09/09/08
B-L05	B-4	Injection	9-19	09/09/08	09/09/08
B-M02	B-4	Injection	9-19	09/08/08	09/08/08
B-M04D	B-4	Injection	17-26	09/08/08	09/08/08
B-M04S	B-4	Injection	5-15	08/21/08	09/08/08
B-N01D	B-4	Injection	15-20	09/09/08	09/09/08
B-N01S	B-4	Injection	7.5-12.5	09/02/08	09/08/08
B-N03S	B-4	Injection	6-16	09/04/08	09/08/08
B-N05	B-5	Injection	9-14	09/09/08	09/09/08
B-O00	B-4	Injection	7-17	09/08/08	09/08/08
B-O02D	B-4	Injection	16-21	09/04/08	09/05/08
B-O02S	B-4	Injection	6-16	09/05/08	09/08/08
B-O04D	B-5	Injection	12.9-22.9	09/09/08	09/09/08
B-P03	B-5	Temporary	16-22	07/30/08	09/08/08
B-Q02D	B-5	Injection	16-20	09/09/08	09/09/08
B-Q02S	B-5	Injection	6-16	09/03/08	09/08/08
B-Q04	B-5	Injection	11-21	09/08/08	09/08/08
B-R01	B-5	Injection	5.5-15.5	08/06/08	09/08/08
B-R03	B-6	Injection	8-13	09/03/08	09/08/08
B-T01	B-6	Injection	7-17	09/08/08	09/08/08
B-I02	B-2	Injection	10-20	09/09/08	09/09/08

Table 4-1
Area A - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Injection Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
A11	9/16/2009	C00	12:40	13:45	0	300	Persulfate	18	12.5	91.67	65	4.62	300	91.7	
A11	9/17/2009	C00	10:26	11:29	0	300	Persulfate	18	13	91.67	63	4.76	600	183	
A11	9/24/2009	C00	10:03	11:11	0	300	Persulfate	18	12.5	91.67	68	4.41	900	275	
A11	9/25/2009	C00	12:40	13:00	0	75	Persulfate	18	12.5	22.92	20	3.75	975	298	
A11	9/29/2009	C00	10:44	11:52	0	225	Persulfate	18	13.5	68.75	68	3.31	1200	367	
A11	10/9/2009	C00	9:52	10:39	0	300	Persulfate	18	11.5	91.67	47	6.38	1500	458	
A11	**10/13/2009**	**C00**	**13:05**	**13:36**	**0**	**125**	**Persulfate**	**18**	**12**	**38.19**	**31**	**4.03**	**1625**	**497**	
A11	9/15/2009	D01	12:00	12:53	0	300	Persulfate	18	13	91.67	53	5.66	300	91.7	
A11	9/16/2009	D01	12:25	13:28	0	300	Persulfate	18	13.5	91.67	63	4.76	600	183	
A11	9/24/2009	D01	12:45	13:46	0	300	Persulfate	18	13.5	91.67	61	4.92	900	275	
A11	9/25/2009	D01	8:46	9:48	0	300	Persulfate	18	13	91.67	62	4.84	1200	367	
A11	10/9/2009	D01	11:22	12:24	0	300	Persulfate	18	12	91.67	62	4.84	1500	458	
A11	**10/13/2009**	**D01**	**11:05**	**11:31**	**0**	**125**	**Persulfate**	**18**	**12**	**38.19**	**26**	**4.81**	**1625**	**497**	
A11	9/15/2009	D02	9:23	10:14	0	300	Persulfate	18	13	91.67	51	5.88	300	91.7	
A11	9/16/2009	D02	14:12	15:20	0	300	Persulfate	18	13	91.67	68	4.41	600	183	
A11	9/24/2009	D02	9:03	10:02	0	300	Persulfate	18	13.5	91.67	59	5.08	900	275	
A11	9/25/2009	D02	9:50	10:40	0	300	Persulfate	18	13.5	91.67	50	6.00	1200	367	
A11	10/12/2009	D02	10:15	11:10	0	300	Persulfate	18	12	91.67	55	5.45	1500	458	
A11	10/13/2009	D02	12:59	13:36	0	125	Persulfate	18	12	38.19	37	3.38	1625	497	
A11	**10/15/2009**	**D02**	**11:47**	**13:07**	**0**	**300**	**Persulfate**	**18**	**12**	**91.67**	**80**	**3.75**	**1925**	**588**	
A11	9/15/2009	D03	10:23	11:25	0	300	Persulfate	18	13	91.67	62	4.84	300	91.7	
A11	9/16/2009	D03	15:34	16:39	0	300	Persulfate	18	13	91.67	65	4.62	600	183	
A11	9/24/2009	D03	10:07	11:11	0	300	Persulfate	18	12.5	91.67	64	4.69	900	275	
A11	9/25/2009	D03	10:43	11:58	0	300	Persulfate	18	13	91.67	75	4.00	1200	367	
A11	10/12/2009	D03	13:18	14:44	0	300	Persulfate	18	12	91.67	86	3.49	1500	458	
A11	10/13/2009	D03	11:05	11:41	0	125	Persulfate	18	13.5	38.19	36	3.47	1625	497	
A11	10/15/2009	D03	9:23	10:52	0	300	Persulfate	18	12	91.67	89	3.37	1925	588	
A11	**10/15/2009**	**D03**	**12:44**	**12:55**	**0**	**25**	**Persulfate**	**18**	**12.5**	**7.64**	**11**	**2.27**	**1950**	**596**	
A11	9/16/2009	D99	11:22	12:32	0	300	Persulfate	18	13	91.67	70	4.29	300	91.7	
A11	9/17/2009	D99	9:18	10:15	0	300	Persulfate	18	13	91.67	57	5.26	600	183	
A11	9/24/2009	D99	8:54	9:59	0	300	Persulfate	18	12.5	91.67	65	4.62	900	275	
A11	9/25/2009	D99	9:58	11:16	0	300	Persulfate	18	13.5	91.67	78	3.85	1200	367	
A11	9/29/2009	D99	12:16	13:44	0	300	Persulfate	18	12.5	91.67	88	3.41	1500	458	
A11	**10/13/2009**	**D99**	**11:05**	**11:31**	**0**	**125**	**Persulfate**	**18**	**12**	**38.19**	**26**	**4.81**	**1625**	**497**	
A11	9/16/2009	E00	9:00	10:11	0	300	Persulfate	18	12.5	91.67	71	4.23	300	91.7	
A11	9/17/2009	E00	9:11	10:15	0	300	Persulfate	18	12.5	91.67	64	4.69	600	183	
A11	9/24/2009	E00	8:46	9:44	0	300	Persulfate	18	12	91.67	58	5.17	900	275	
A11	9/28/2009	E00	11:04	12:24	0	300	Persulfate	18	13.5	91.67	80	3.75	1200	367	
A11	9/29/2009	E00	9:52	11:12	0	300	Persulfate	18	13	91.67	80	3.75	1500	458	
A11	**10/13/2009**	**E00**	**10:31**	**10:58**	**0**	**125**	**Persulfate**	**18**	**12**	**38.19**	**27**	**4.63**	**1625**	**497**	
A11	9/16/2009	E98	9:30	10:29	0	300	Persulfate	18	12.5	91.67	59	5.08	300	91.7	
A11	9/17/2009	E98	10:23	11:20	0	300	Persulfate	18	13.5	91.67	57	5.26	600	183	
A11	9/24/2009	E98	14:02	15:10	0	300	Persulfate	18	13.5	91.67	68	4.41	900	275	

Table 4-1 (cont.)
Area A - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Injection Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
A11	9/25/2009	E98	12:32	12:40	0	25	Persulfate	18	12.5	7.64	8	3.13	925	283	
A11	9/25/2009	E98	9:01	9:55	0	200	Persulfate	18	13.5	61.11	54	3.70	1125	344	Breakout around well casing
A11	9/29/2009	E98	10:00	10:40	0	75	Persulfate	18	13.5	22.92	40	1.88	1200	367	
A11	10/12/2009	E98	10:00	13:21	0	300	Persulfate	18	12.5	91.67	201	1.49	1500	458	
A11	10/13/2009	E98	10:31	11:00	0	50	Persulfate	18	12	15.28	29	1.72	1550	474	Breakout around well casing
A11	**10/15/2009**	**E98**	**10:54**	**11:41**	**0**	**75**	**Persulfate**	**18**	**12.5**	**22.92**	**47**	**1.60**	**1625**	**497**	
A11	9/16/2009	F01	10:55	12:15	0	300	Persulfate	18	13	91.67	80	3.75	300	91.7	
A11	9/16/2009	F01	15:40	16:38	0	300	Persulfate	18	12.5	91.67	58	5.17	600	183	
A11	9/24/2009	F01	9:50	10:49	0	300	Persulfate	18	12	91.67	59	5.08	900	275	
A11	9/28/2009	F01	12:56	14:43	0	300	Persulfate	18	12.5	91.67	107	2.80	1200	367	
A11	10/9/2009	F01	9:41	10:53	0	300	Persulfate	18	12	91.67	72	4.17	1500	458	
A11	10/13/2009	F01	11:50	12:05	0	50	Persulfate	18	13.5	15.28	15	3.33	1550	474	
A11	10/13/2009	F01	12:05	12:10	0	25	Persulfate	18	13	7.64	5	5.00	1575	481	
A11	**10/13/2009**	**F01**	**11:36**	**11:50**	**0**	**50**	**Persulfate**	**18**	**12**	**15.28**	**14**	**3.57**	**1625**	**497**	
A11	9/15/2009	F02	13:01	14:22	0	300	Persulfate	18	13	91.67	81	3.70	300	91.7	
A11	9/17/2009	F02	8:52	9:41	0	300	Persulfate	18	12.5	91.67	49	6.12	600	183	
A11	9/24/2009	F02	13:56	14:57	0	300	Persulfate	18	13.5	91.67	61	4.92	900	275	
A11	9/28/2009	F02	14:53	15:58	0	300	Persulfate	18	13	91.67	65	4.62	1200	367	
A11	10/12/2009	F02	11:33	12:45	0	300	Persulfate	18	12	91.67	72	4.17	1500	458	
A11	10/13/2009	F02	10:36	10:59	0	125	Persulfate	18	13.5	38.19	23	5.43	1625	497	
A11	10/15/2009	F02	12:56	13:07	0	25	Persulfate	18	12.5	7.64	11	2.27	1650	504	
A11	**10/15/2009**	**F02**	**9:34**	**10:52**	**0**	**300**	**Persulfate**	**18**	**12**	**91.67**	**78**	**3.85**	**1950**	**596**	
A11	9/15/2009	F03	14:42	15:42	0	300	Persulfate	18	12.5	91.67	60	5.00	300	91.7	
A11	9/17/2009	F03	10:00	11:08	0	300	Persulfate	18	13	91.67	68	4.41	600	183	
A11	9/24/2009	F03	12:36	13:40	0	300	Persulfate	18	13.5	91.67	64	4.69	900	275	
A11	9/25/2009	F03	8:53	10:10	0	300	Persulfate	18	13	91.67	77	3.90	1200	367	
A11	10/9/2009	F03	11:13	12:35	0	300	Persulfate	18	12	91.67	82	3.66	1500	458	
A11	10/13/2009	F03	13:41	14:10	0	125	Persulfate	18	12	38.19	29	4.31	1625	497	
A11	10/15/2009	F03	11:10	12:30	0	300	Persulfate	18	12.5	91.67	80	3.75	1925	588	
A11	**10/15/2009**	**F03**	**12:30**	**12:43**	**0**	**25**	**Persulfate**	**18**	**12.5**	**7.64**	**13**	**1.92**	**1950**	**596**	
A11	9/16/2009	F99	13:58	14:52	0	300	Persulfate	18	12.5	91.67	54	5.56	300	91.7	
A11	9/17/2009	F99	11:51	12:40	0	300	Persulfate	18	12	91.67	49	6.12	600	183	
A11	9/24/2009	F99	12:51	13:48	0	300	Persulfate	18	13	91.67	57	5.26	900	275	
A11	9/25/2009	F99	11:24	12:27	0	300	Persulfate	18	12.5	91.67	63	4.76	1200	367	
A11	9/29/2009	F99	14:51	16:02	0	300	Persulfate	18	12	91.67	71	4.23	1500	458	
A11	**10/13/2009**	**F99**	**11:36**	**12:05**	**0**	**125**	**Persulfate**	**18**	**12**	**38.19**	**29**	**4.31**	**1625**	**497**	
A12	9/15/2009	A03	14:55	15:37	0	250	Persulfate	18	13.5	76.39	42	5.95	250	76.4	
A12	9/16/2009	A03	12:15	13:20	0	300	Persulfate	18	13	91.67	65	4.62	550	168	
A12	9/24/2009	A03	10:17	11:23	0	300	Persulfate	18	13.5	91.67	66	4.55	850	260	
A12	9/25/2009	A03	10:17	10:30	0	50	Persulfate	18	13	15.28	13	3.85	900	275	Breakout around well casing
A12	9/25/2009	A03	11:54	13:20	0	250	Persulfate	18	13	76.39	86	2.91	1150	351	
A12	9/29/2009	A03	11:27	12:19	0	125	Persulfate	18	12.5	38.19	52	2.40	1275	390	Breakout around well casing
A12	10/12/2009	A03	13:47	14:32	0	100	Persulfate	18	13.5	30.56	45	2.22	1375	420	Breakout

Table 4-1 (cont.)
Area A - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Injection Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
A12	10/13/2009	A03	13:41	14:52	0	175	Persulfate	18	12	53.47	71	2.46	1550	474	
A12	**10/15/2009**	**A03**	**9:10**	**10:50**	**0**	**150**	**Persulfate**	**18**	**12.5**	**45.83**	**100**	**1.50**	**1700**	**519**	
A12	9/15/2009	A04	13:38	14:26	0	300	Persulfate	18	13	91.67	48	6.25	300	91.7	
A12	9/16/2009	A04	10:54	12:02	0	300	Persulfate	18	13	91.67	68	4.41	600	183	
A12	9/24/2009	A04	9:11	10:14	0	300	Persulfate	18	12.5	91.67	63	4.76	900	275	
A12	9/25/2009	A04	10:30	11:50	0	300	Persulfate	18	13.5	91.67	80	3.75	1200	367	
A12	9/29/2009	A04	14:58	16:20	0	300	Persulfate	18	13.5	91.67	82	3.66	1500	458	
A12	**10/12/2009**	**A04**	**14:34**	**15:17**	**0**	**200**	**Persulfate**	**18**	**13.5**	**61.11**	**43**	**4.65**	**1700**	**519**	
A12	9/16/2009	B03	9:20	10:20	0	300	Persulfate	18	12.5	91.67	60	5.00	300	91.7	
A12	9/17/2009	B03	11:43	12:48	0	300	Persulfate	18	13.5	91.67	65	4.62	600	183	
A12	9/24/2009	B03	13:46	14:52	0	300	Persulfate	18	13	91.67	66	4.55	900	275	
A12	9/28/2009	B03	11:00	12:13	0	300	Persulfate	18	12	91.67	73	4.11	1200	367	
A12	9/29/2009	B03	12:21	13:08	0	175	Persulfate	18	12.5	53.47	47	3.72	1375	420	
A12	10/12/2009	B03	12:14	13:27	0	250	Persulfate	18	12.5	76.39	73	3.42	1625	497	
A12	**10/13/2009**	**B03**	**11:38**	**11:50**	**0**	**75**	**Persulfate**	**18**	**13**	**22.92**	**12**	**6.25**	**1700**	**519**	
A12	9/15/2009	B04	14:42	14:53	0	50	Persulfate	18	13.5	15.28	11	4.55	50	15.3	Breakout
A12	9/16/2009	B04	10:49	10:52	0	0	Persulfate	18	13	0.00	3	0.00	50	15.3	
A12	**9/24/2009**	**B04**	**12:27**	**12:30**	**0**	**0**	**Persulfate**	**18**	**0**	**0.00**	**3**	**0.00**	**50**	**15.3**	
A13	9/15/2009	D06D	11:55	12:53	0	300	Persulfate	18	13	91.67	58	5.17	300	91.7	
A13	9/16/2009	D06D	13:51	15:12	0	300	Persulfate	18	13	91.67	81	3.70	600	183	
A13	9/24/2009	D06D	12:31	13:31	0	300	Persulfate	18	12.5	91.67	60	5.00	900	275	
A13	9/25/2009	D06D	11:23	12:18	0	300	Persulfate	18	13	91.67	55	5.45	1200	367	
A13	**10/12/2009**	**D06D**	**14:13**	**15:12**	**0**	**175**	**Persulfate**	**18**	**12**	**53.47**	**59**	**2.97**	**1375**	**420**	
A13	9/15/2009	D07D	10:29	11:15	0	300	Persulfate	18	13.5	91.67	46	6.52	300	91.7	
A13	9/16/2009	D07D	11:33	12:32	0	300	Persulfate	18	12.5	91.67	59	5.08	600	183	
A13	9/23/2009	D07D	13:35	14:27	0	300	Persulfate	18	13.5	91.67	52	5.77	900	275	
A13	9/28/2009	D07D	14:30	15:39	0	300	Persulfate	18	12.5	91.67	69	4.35	1200	367	
A13	10/12/2009	D07D	11:02	11:33	0	125	Persulfate	18	12	38.19	31	4.03	1325	405	
A13	**10/12/2009**	**D07D**	**11:55**	**12:10**	**0**	**50**	**Persulfate**	**18**	**12.5**	**15.28**	**15**	**3.33**	**1375**	**420**	
A13	9/15/2009	D08D	9:29	10:22	0	300	Persulfate	18	13.5	91.67	53	5.66	300	91.7	
A13	9/16/2009	D08D	13:04	14:10	0	300	Persulfate	18	12.5	91.67	66	4.55	600	183	
A13	9/23/2009	D08D	10:49	11:49	0	300	Persulfate	18	13.5	91.67	60	5.00	900	275	
A13	9/29/2009	D08D	11:10	12:58	0	300	Persulfate	18	12.5	91.67	108	2.78	1200	367	
A13	**10/9/2009**	**D08D**	**11:57**	**12:43**	**0**	**175**	**Persulfate**	**18**	**13.5**	**53.47**	**46**	**3.80**	**1375**	**420**	
A13	9/15/2009	D09	12:25	13:32	0	300	Persulfate	18	13	91.67	67	4.48	300	91.7	
A13	9/16/2009	D09	15:51	16:45	0	300	Persulfate	18	13	91.67	54	5.56	600	183	
A13	9/23/2009	D09	9:15	10:21	0	300	Persulfate	18	13	91.67	66	4.55	900	275	
A13	9/28/2009	D09	10:19	11:30	0	300	Persulfate	18	12.5	91.67	71	4.23	1200	367	
A13	**9/29/2009**	**D09**	**15:59**	**16:30**	**0**	**175**	**Persulfate**	**18**	**12.5**	**53.47**	**31**	**5.65**	**1375**	**420**	
A13	9/14/2009	D10	10:40	11:23	0	300	Persulfate	18	13	91.67	43	6.98	300	91.7	
A13	9/17/2009	D10	13:31	14:36	0	300	Persulfate	18	13	91.67	65	4.62	600	183	
A13	9/23/2009	D10	14:33	15:37	0	300	Persulfate	18	12.5	91.67	64	4.69	900	275	
A13	9/28/2009	D10	12:40	13:54	0	300	Persulfate	18	12	91.67	74	4.05	1200	367	

Table 4-1 (cont.)
Area A - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Injection Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
A13	10/9/2009	D10	10:48	11:14	0	125	Persulfate	18	12	38.19	26	4.81	1325	405	
A13	10/9/2009	D10	11:35	11:51	0	50	Persulfate	18	13.5	15.28	16	3.13	1375	420	
A13	9/14/2009	D11	11:32	12:23	0	300	Persulfate	18	13	91.67	51	5.88	300	91.7	
A13	9/17/2009	D11	11:12	12:17	0	300	Persulfate	18	12.5	91.67	65	4.62	600	183	
A13	9/22/2009	D11	14:19	15:11	0	300	Persulfate	18	12.5	91.67	52	5.77	900	275	
A13	9/28/2009	D11	10:14	11:26	0	300	Persulfate	18	13	91.67	72	4.17	1200	367	
A13	10/9/2009	D11	10:00	10:44	0	175	Persulfate	18	12	53.47	44	3.98	1375	420	
A13	9/15/2009	F06	13:01	14:14	0	300	Persulfate	18	13	91.67	73	4.11	300	91.7	
A13	9/16/2009	F06	15:30	16:20	0	300	Persulfate	18	12.5	91.67	50	6.00	600	183	
A13	9/25/2009	F06	10:19	11:20	0	300	Persulfate	18	12	91.67	61	4.92	900	275	
A13	9/28/2009	F06	12:48	14:18	0	300	Persulfate	18	13	91.67	90	3.33	1200	367	
A13	10/12/2009	F06	15:18	15:48	0	125	Persulfate	18	12	38.19	30	4.17	1325	405	
A13	10/12/2009	F06	15:50	15:58	0	25	Persulfate	18	11.5	7.64	8	3.13	1350	413	
A13	10/13/2009	F06	10:42	10:53	0	25	Persulfate	18	13	7.64	11	2.27	1375	420	
A13	9/15/2009	F07D	14:18	15:16	0	300	Persulfate	18	13.5	91.67	58	5.17	300	91.7	
A13	9/16/2009	F07D	9:05	10:06	0	300	Persulfate	18	12	91.67	61	4.92	600	183	
A13	9/24/2009	F07D	15:00	15:28	0	175	Persulfate	18	13	53.47	28	6.25	775	237	
A13	9/25/2009	F07D	9:48	10:10	0	125	Persulfate	18	12.5	38.19	22	5.68	900	275	
A13	9/29/2009	F07D	9:47	11:49	0	300	Persulfate	18	12.5	91.67	122	2.46	1200	367	
A13	10/12/2009	F07D	10:20	11:01	0	175	Persulfate	18	12	53.47	41	4.27	1375	420	
A13	9/14/2009	F08	16:20	17:30	0	300	Persulfate	18	13.5	91.67	70	4.29	300	91.7	
A13	9/15/2009	F08	15:19	16:15	0	300	Persulfate	18	13	91.67	56	5.36	600	183	
A13	9/23/2009	F08	14:56	16:07	0	300	Persulfate	18	12.5	91.67	71	4.23	900	275	
A13	9/23/2009	F08	14:17	14:56	0	175	Persulfate	18	12.5	53.47	39	4.49	1075	328	
A13	9/25/2009	F08	9:06	9:46	0	125	Persulfate	18	12.5	38.19	40	3.13	1200	367	
A13	10/13/2009	F08	10:53	11:33	0	175	Persulfate	18	13	53.47	40	4.38	1375	420	
A13	9/15/2009	F09	10:37	12:21	0	300	Persulfate	18	12.5	91.67	104	2.88	300	91.7	Breakout around well casing
A13	9/16/2009	F09	14:20	16:31	0	300	Persulfate	18	13	91.67	131	2.29	600	183	
A13	9/23/2009	F09	13:25	14:16	0	125	Persulfate	18	12.5	38.19	51	2.45	725	222	Breakout around well casing
A13	9/24/2009	F09	13:35	14:59	0	125	Persulfate	18	13	38.19	84	1.49	850	260	Breakout around well casing
A13	9/25/2009	F09	8:40	9:03	0	50	Persulfate	18	12.5	15.28	23	2.17	900	275	
A13	9/29/2009	F09	15:04	15:58	0	125	Persulfate	18	12.5	38.19	54	2.31	1025	313	
A13	10/2/2009	F09	10:40	11:56	0	175	Persulfate	18	13	53.47	76	2.30	1200	367	
A13	10/12/2009	F09	14:09	15:29	0	175	Persulfate	18	11.5	53.47	80	2.19	1375	420	
A13	9/14/2009	F10	16:14	17:23	0	300	Persulfate	18	13	91.67	69	4.35	300	91.7	
A13	9/17/2009	F10	10:15	11:09	0	300	Persulfate	18	12	91.67	54	5.56	600	183	
A13	9/23/2009	F10	10:56	11:55	0	300	Persulfate	18	13.5	91.67	59	5.08	900	275	
A13	9/28/2009	F10	13:58	15:24	0	300	Persulfate	18	12.5	91.67	86	3.49	1200	367	
A13	10/12/2009	F10	12:29	12:49	0	75	Persulfate	18	12.5	22.92	20	3.75	1275	390	
A13	10/12/2009	F10	13:30	14:01	0	100	Persulfate	18	11.5	30.56	31	3.23	1375	420	
A13	9/14/2009	F11	14:11	14:54	0	300	Persulfate	18	13.5	91.67	43	6.98	300	91.7	
A13	9/17/2009	F11	8:58	10:00	0	300	Persulfate	18	12	91.67	62	4.84	600	183	
A13	9/23/2009	F11	9:09	10:06	0	300	Persulfate	18	12	91.67	57	5.26	900	275	

Table 4-1 (cont.)
Area A - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Injection Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
A13	9/28/2009	F11	12:33	13:45	0	300	Persulfate	18	12.5	91.67	72	4.17	1200	367	
A13	10/9/2009	F11	12:47	13:02	0	75	Persulfate	18	13.5	22.92	15	5.00	1275	390	
A13	**10/9/2009**	**F11**	**13:08**	**13:32**	**0**	**100**	**Persulfate**	**18**	**13**	**30.56**	**24**	**4.17**	**1375**	**420**	
A14	9/11/2009	F13	14:09	14:59	0	300	Persulfate	18	13.5	91.67	50	6.00	300	91.7	
A14	9/15/2009	F13	13:13	14:15	0	300	Persulfate	18	12.5	91.67	62	4.84	600	183	
A14	9/21/2009	F13	11:32	12:44	0	300	Persulfate	18	12.5	91.67	72	4.17	900	275	
A14	9/30/2009	F13	13:49	15:05	0	300	Persulfate	18	12.5	91.67	76	3.95	1200	367	
A14	**10/8/2009**	**F13**	**13:32**	**14:27**	**0**	**300**	**Persulfate**	**18**	**12**	**91.67**	**55**	**5.45**	**1500**	**458**	
A14	9/14/2009	F14	14:46	15:07	0	100	Persulfate	18	13	30.56	21	4.76	100	30.6	
A14	9/14/2009	F14	13:51	14:35	0	300	Persulfate	18	13	91.67	44	6.82	400	122	
A14	9/18/2009	F14	8:53	9:40	0	200	Persulfate	18	12.5	61.11	47	4.26	600	183	
A14	9/21/2009	F14	12:50	13:45	0	300	Persulfate	18	12.5	91.67	55	5.45	900	275	
A14	10/1/2009	F14	11:48	12:55	0	300	Persulfate	18	13	91.67	67	4.48	1200	367	
A14	10/6/2009	F14	14:02	14:17	0	75	Persulfate	18	12	22.92	15	5.00	1275	390	
A14	10/6/2009	F14	13:30	13:46	0	75	Persulfate	18	12.5	22.92	16	4.69	1350	413	
A14	**10/6/2009**	**F14**	**13:46**	**14:02**	**0**	**75**	**Persulfate**	**18**	**12**	**22.92**	**16**	**4.69**	**1425**	**435**	
A14	9/11/2009	F15	13:01	13:45	0	300	Persulfate	18	13.5	91.67	44	6.82	300	91.7	
A14	9/14/2009	F15	16:23	17:05	0	225	Persulfate	18	12.5	68.75	42	5.36	525	160	
A14	9/18/2009	F15	9:51	10:02	0	75	Persulfate	18	12.5	22.92	11	6.82	600	183	
A14	9/22/2009	F15	13:58	15:05	0	300	Persulfate	18	13	91.67	67	4.48	900	275	
A14	10/1/2009	F15	9:18	10:33	0	300	Persulfate	18	12	91.67	75	4.00	1200	367	
A14	**10/8/2009**	**F15**	**15:10**	**16:08**	**0**	**225**	**Persulfate**	**18**	**12**	**68.75**	**58**	**3.88**	**1425**	**435**	
A14	9/11/2009	F16	10:25	11:10	0	300	Persulfate	18	13.5	91.67	45	6.67	300	91.7	
A14	9/18/2009	F16	14:54	16:07	0	300	Persulfate	18	12.5	91.67	73	4.11	600	183	
A14	9/21/2009	F16	14:26	15:37	0	300	Persulfate	18	12.5	91.67	71	4.23	900	275	
A14	10/2/2009	F16	14:10	15:10	0	300	Persulfate	18	12	91.67	60	5.00	1200	367	
A14	**10/6/2009**	**F16**	**13:09**	**13:58**	**0**	**225**	**Persulfate**	**18**	**12**	**68.75**	**49**	**4.59**	**1425**	**435**	
A14	9/11/2009	F17	12:55	13:38	0	300	Persulfate	18	13.5	91.67	43	6.98	300	91.7	
A14	9/18/2009	F17	9:03	10:09	0	300	Persulfate	18	12.5	91.67	66	4.55	600	183	
A14	9/22/2009	F17	15:20	16:11	0	300	Persulfate	18	12.5	91.67	51	5.88	900	275	
A14	9/30/2009	F17	15:00	16:20	0	300	Persulfate	18	13	91.67	80	3.75	1200	367	
A14	**10/5/2009**	**F17**	**13:04**	**14:20**	**0**	**225**	**Persulfate**	**18**	**12.5**	**68.75**	**76**	**2.96**	**1425**	**435**	
A14	9/15/2009	H10	9:14	10:29	0	300	Persulfate	18	13	91.67	75	4.00	300	91.7	Breakout around well casing
A14	9/17/2009	H10	13:31	15:05	0	300	Persulfate	18	13	91.67	94	3.19	600	183	
A14	9/23/2009	H10	14:46	16:17	0	300	Persulfate	18	12.5	91.67	91	3.30	900	275	
A14	9/29/2009	H10	9:38	10:43	0	300	Persulfate	18	13	91.67	65	4.62	1200	367	
A14	**10/12/2009**	**H10**	**10:26**	**12:23**	**0**	**225**	**Persulfate**	**18**	**12.5**	**68.75**	**117**	**1.92**	**1425**	**435**	
A14	9/14/2009	H11	11:53	12:41	0	300	Persulfate	18	13	91.67	48	6.25	300	91.7	
A14	9/17/2009	H11	15:18	16:16	0	300	Persulfate	18	13	91.67	58	5.17	600	183	
A14	9/23/2009	H11	13:21	14:30	0	300	Persulfate	18	12.5	91.67	69	4.35	900	275	
A14	9/28/2009	H11	13:54	15:20	0	300	Persulfate	18	12	91.67	86	3.49	1200	367	
A14	**10/9/2009**	**H11**	**10:55**	**11:37**	**0**	**225**	**Persulfate**	**18**	**13.5**	**68.75**	**42**	**5.36**	**1425**	**435**	
A14	9/15/2009	H12	9:10	10:56	0	300	Persulfate	18	13	91.67	106	2.83	300	91.7	

Table 4-1 (cont.)
Area A - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Injection Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
A14	9/18/2009	H12	13:14	13:49	0	100	Persulfate	18	12.5	30.56	35	2.86	400	122	
A14	9/18/2009	H12	11:20	11:56	0	125	Persulfate	18	12.5	38.19	36	3.47	525	160	Breakout around well casing
A14	9/21/2009	H12	10:43	11:26	0	125	Persulfate	18	13.5	38.19	43	2.91	650	199	Breakout around well casing
A14	9/22/2009	H12	11:45	13:15	0	250	Persulfate	18	13	76.39	90	2.78	900	275	
A14	9/30/2009	H12	11:14	13:10	0	300	Persulfate	18	12	91.67	116	2.59	1200	367	
A14	**10/5/2009**	**H12**	**13:04**	**14:47**	**0**	**225**	**Persulfate**	**18**	**13**	**68.75**	**103**	**2.18**	**1425**	**435**	
A14	9/14/2009	H13	15:57	16:08	0	75	Persulfate	18	12.5	22.92	11	6.82	75	22.9	Breakout around well casing
A14	9/15/2009	H13	10:59	12:07	0	175	Persulfate	18	13	53.47	68	2.57	250	76.4	Breakout around well casing
A14	9/18/2009	H13	13:00	13:24	0	50	Persulfate	18	13.5	15.28	24	2.08	300	91.7	
A14	9/18/2009	H13	10:52	12:05	0	200	Persulfate	18	13	61.11	73	2.74	500	153	
A14	9/21/2009	H13	9:00	9:56	0	100	Persulfate	18	13.5	30.56	56	1.79	600	183	Breakout around well casing
A14	9/22/2009	H13	8:58	10:55	0	300	Persulfate	18	12.5	91.67	117	2.56	900	275	
A14	10/1/2009	H13	9:27	11:30	0	300	Persulfate	18	13.5	91.67	123	2.44	1200	367	Breakout around well casing
A14	**10/6/2009**	**H13**	**9:09**	**10:26**	**0**	**225**	**Persulfate**	**18**	**12**	**68.75**	**77**	**2.92**	**1425**	**435**	
A14	9/14/2009	H14	12:08	12:49	0	300	Persulfate	18	13.5	91.67	41	7.32	300	91.7	
A14	9/15/2009	H14	14:49	15:49	0	300	Persulfate	18	12	91.67	60	5.00	600	183	
A14	9/21/2009	H14	13:50	14:54	0	300	Persulfate	18	12	91.67	64	4.69	900	275	
A14	10/5/2009	H14	10:27	11:48	0	300	Persulfate	18	13	91.67	81	3.70	1200	367	
A14	**10/6/2009**	**H14**	**12:27**	**13:28**	**0**	**225**	**Persulfate**	**18**	**12.5**	**68.75**	**61**	**3.69**	**1425**	**435**	
A14	9/11/2009	H15	14:04	14:52	0	300	Persulfate	18	13.5	91.67	48	6.25	300	91.7	
A14	9/18/2009	H15	10:08	11:11	0	300	Persulfate	18	12.5	91.67	63	4.76	600	183	
A14	9/22/2009	H15	12:08	13:50	25	300	Persulfate	18	13.5	91.67	102	2.94	900	275	
A14	10/1/2009	H15	10:51	12:46	20	300	Persulfate	18	12.5	91.67	115	2.61	1200	367	
A14	**10/8/2009**	**H15**	**13:41**	**15:02**	**15**	**225**	**Persulfate**	**18**	**13.5**	**68.75**	**81**	**2.78**	**1425**	**435**	
A14	9/14/2009	H16	11:42	12:34	0	300	Persulfate	18	13	91.67	52	5.77	300	91.7	
A14	9/18/2009	H16	15:11	15:45	0	200	Persulfate	18	12.5	61.11	34	5.88	500	153	
A14	9/21/2009	H16	9:07	10:37	0	300	Persulfate	18	13	91.67	90	3.33	800	244	
A14	9/23/2009	H16	14:45	15:05	0	100	Persulfate	18	13	30.56	20	5.00	900	275	
A14	10/2/2009	H16	12:18	13:48	0	300	Persulfate	18	13	91.67	90	3.33	1200	367	
A14	**10/6/2009**	**H16**	**9:13**	**10:13**	**0**	**225**	**Persulfate**	**18**	**12.5**	**68.75**	**60**	**3.75**	**1425**	**435**	
A14	9/14/2009	H17	10:35	11:22	0	300	Persulfate	18	13.5	91.67	47	6.38	300	91.7	
A14	9/17/2009	H17	14:35	15:28	0	300	Persulfate	18	12.5	91.67	53	5.66	600	183	
A14	9/23/2009	H17	9:22	10:17	0	300	Persulfate	18	13.5	91.67	55	5.45	900	275	
A14	9/30/2009	H17	12:41	14:31	0	300	Persulfate	18	13.5	91.67	110	2.73	1200	367	
A14	10/5/2009	H17	14:56	15:10	0	75	Persulfate	18	13	22.92	14	5.36	1275	390	
A14	10/5/2009	H17	14:23	14:40	0	75	Persulfate	18	12.5	22.92	17	4.41	1350	413	
A14	**10/5/2009**	**H17**	**15:10**	**15:27**	**0**	**75**	**Persulfate**	**18**	**13.5**	**22.92**	**17**	**4.41**	**1425**	**435**	
A14	9/14/2009	I10	14:05	14:45	0	300	Persulfate	18	13	91.67	40	7.50	300	91.7	
A14	9/17/2009	I10	11:39	12:45	0	300	Persulfate	18	13.5	91.67	66	4.55	600	183	
A14	9/22/2009	I10	15:06	16:06	0	300	Persulfate	18	13.5	91.67	60	5.00	900	275	
A14	9/29/2009	I10	12:06	13:12	0	300	Persulfate	18	13.5	91.67	66	4.55	1200	367	
A14	10/9/2009	I10	12:21	13:08	0	200	Persulfate	18	13	61.11	47	4.26	1400	428	
A14	**10/9/2009**	**I10**	**11:41**	**11:49**	**0**	**25**	**Persulfate**	**18**	**13**	**7.64**	**8**	**3.12**	**1425**	**435**	

Table 4-1 (cont.)
Area A - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Injection Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
A14	9/14/2009	I11	10:52	11:39	0	300	Persulfate	18	13	91.67	47	6.38	300	91.7	
A14	9/18/2009	I11	8:44	9:52	0	300	Persulfate	18	12.5	91.67	68	4.41	600	183	
A14	9/22/2009	I11	13:38	14:43	0	300	Persulfate	18	13	91.67	65	4.62	900	275	
A14	9/29/2009	I11	15:11	16:19	0	300	Persulfate	18	13.5	91.67	68	4.41	1200	367	
A14	**10/6/2009**	**I11**	**12:38**	**13:39**	**0**	**225**	**Persulfate**	**18**	**12**	**68.75**	**61**	**3.69**	**1425**	**435**	
A14	9/14/2009	I12	16:00	16:10	0	25	Persulfate	18	13.5	7.64	10	2.50	25	7.6	Breakout around well casing
A14	**9/15/2009**	**I12**	**12:08**	**12:25**	**0**	**25**	**Persulfate**	**18**	**13**	**7.64**	**17**	**1.47**	**50**	**15.3**	
A14	9/14/2009	I13	13:58	14:30	20	200	Persulfate	18	13	61.11	32	6.25	200	61.1	Breakout around well casing
A14	9/15/2009	I13	12:26	13:02	0	100	Persulfate	18	13	30.56	36	2.78	300	91.7	
A14	9/18/2009	I13	10:03	11:19	0	175	Persulfate	18	12.5	53.47	76	2.30	475	145	Breakout around well casing
A14	9/21/2009	I13	10:02	10:43	0	75	Persulfate	18	13.5	22.92	41	1.83	550	168	Breakout around well casing
A14	9/22/2009	I13	11:12	11:44	0	50	Persulfate	18	13	15.28	32	1.56	600	183	Breakout around well casing
A14	9/23/2009	I13	15:08	16:06	0	150	Persulfate	18	13	45.83	58	2.59	750	229	
A14	10/1/2009	I13	12:15	12:42	0	50	Persulfate	18	12.5	15.28	27	1.85	800	244	
A14	10/2/2009	I13	12:02	12:42	0	125	Persulfate	18	13	38.19	40	3.13	925	283	
A14	10/5/2009	I13	9:46	12:46	0	300	Persulfate	18	12	91.67	180	1.67	1225	374	
A14	10/8/2009	I13	15:02	15:31	0	75	Persulfate	18	13.5	22.92	29	2.59	1300	397	
A14	10/8/2009	I13	16:09	16:38	0	75	Persulfate	18	12	22.92	29	2.59	1375	420	
A14	**10/9/2009**	**I13**	**10:10**	**10:52**	**10**	**50**	**Persulfate**	**18**	**13.5**	**15.28**	**42**	**1.19**	**1425**	**435**	
A14	9/11/2009	I14	13:58	14:54	0	300	Persulfate	18	13.5	91.67	56	5.36	300	91.7	
A14	9/17/2009	I14	14:48	15:51	0	300	Persulfate	18	12.5	91.67	63	4.76	600	183	
A14	9/23/2009	I14	11:03	12:07	0	300	Persulfate	18	13.5	91.67	64	4.69	900	275	
A14	9/30/2009	I14	11:14	12:23	0	300	Persulfate	18	12.5	91.67	69	4.35	1200	367	
A14	**10/6/2009**	**I14**	**9:09**	**9:50**	**0**	**225**	**Persulfate**	**18**	**11.5**	**68.75**	**41**	**5.49**	**1425**	**435**	
A14	9/14/2009	I15	11:02	11:51	0	300	Persulfate	18	13	91.67	49	6.12	300	91.7	
A14	9/14/2009	I15	16:17	17:17	0	275	Persulfate	18	13.5	84.03	60	4.58	575	176	
A14	9/18/2009	I15	9:44	9:49	0	25	Persulfate	18	12.5	7.64	5	5.00	600	183	
A14	9/22/2009	I15	10:19	11:13	0	300	Persulfate	18	13	91.67	54	5.56	900	275	
A14	10/2/2009	I15	10:42	11:58	0	300	Persulfate	18	12	91.67	76	3.95	1200	367	
A14	10/6/2009	I15	10:30	10:45	0	75	Persulfate	18	12	22.92	15	5.00	1275	390	
A14	10/6/2009	I15	10:13	10:29	0	75	Persulfate	18	12.5	22.92	16	4.69	1350	413	
A14	**10/6/2009**	**I15**	**9:55**	**10:11**	**0**	**75**	**Persulfate**	**18**	**11.5**	**22.92**	**16**	**4.69**	**1425**	**435**	
A14	9/11/2009	I16	13:58	14:53	0	300	Persulfate	18	13.5	91.67	55	5.45	300	91.7	
A14	9/18/2009	I16	14:45	15:07	0	100	Persulfate	18	12.5	30.56	22	4.55	400	122	
A14	9/18/2009	I16	13:45	14:26	0	200	Persulfate	18	12.5	61.11	41	4.88	600	183	
A14	9/21/2009	I16	12:34	14:21	0	450	Persulfate	18	12.5	137.50	107	4.21	1050	321	
A14	10/2/2009	I16	14:03	15:07	0	300	Persulfate	18	13	91.67	64	4.69	1350	413	
A14	**10/5/2009**	**I16**	**13:04**	**13:31**	**0**	**75**	**Persulfate**	**18**	**12**	**22.92**	**27**	**2.78**	**1425**	**435**	
A14	9/11/2009	I17	12:38	13:30	0	300	Persulfate	18	13	91.67	52	5.77	300	91.7	
A14	9/17/2009	I17	13:40	14:22	0	300	Persulfate	18	12.5	91.67	42	7.14	600	183	
A14	9/22/2009	I17	15:09	16:02	0	275	Persulfate	18	12	84.03	53	5.19	875	267	
A14	9/23/2009	I17	14:36	14:43	0	25	Persulfate	18	13	7.64	7	3.57	900	275	
A14	9/30/2009	I17	10:50	12:04	0	300	Persulfate	18	12	91.67	74	4.05	1200	367	

Table 4-1 (cont.)
Area A - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Injection Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
A14	**10/5/2009**	**I17**	**15:27**	**16:21**	**0**	**225**	**Persulfate**	**18**	**13.5**	**68.75**	**54**	**4.17**	**1425**	**435**	
A14	9/11/2009	J15	12:38	13:29	0	300	Persulfate	18	13	91.67	51	5.88	300	91.7	
A14	9/18/2009	J15	13:22	14:45	0	300	Persulfate	18	13.5	91.67	83	3.61	600	183	
A14	9/22/2009	J15	8:50	9:51	0	300	Persulfate	18	12	91.67	61	4.92	900	275	
A14	9/30/2009	J15	15:00	16:04	0	300	Persulfate	18	12	91.67	64	4.69	1200	367	
A14	**10/5/2009**	**J15**	**13:37**	**14:23**	**0**	**225**	**Persulfate**	**18**	**12**	**68.75**	**46**	**4.89**	**1425**	**435**	
A15	9/11/2009	F19	8:59	9:47	0	300	Persulfate	18	13.5	91.67	48	6.25	300	91.7	
A15	9/18/2009	F19	10:17	11:18	0	300	Persulfate	18	12.5	91.67	61	4.92	600	183	
A15	9/23/2009	F19	13:14	14:10	0	300	Persulfate	18	13.5	91.67	56	5.36	900	275	
A15	10/1/2009	F19	9:08	10:26	0	300	Persulfate	18	12	91.67	78	3.85	1200	367	
A15	10/8/2009	F19	12:09	12:59	0	300	Persulfate	18	13	91.67	50	6.00	1500	458	
A15	10/14/2009	F19	11:03	11:16	0	75	Persulfate	18	12.5	22.92	13	5.77	1575	481	
A15	10/14/2009	F19	10:51	11:03	0	75	Persulfate	18	12.5	22.92	12	6.25	1650	504	
A15	**10/14/2009**	**F19**	**11:16**	**11:28**	**0**	**75**	**Persulfate**	**18**	**13**	**22.92**	**12**	**6.25**	**1725**	**527**	
A15	9/10/2009	F21	16:27	17:04	0	300	Persulfate	18	12.5	91.67	37	8.11	300	91.7	
A15	9/18/2009	F21	15:00	15:44	0	225	Persulfate	18	13.5	68.75	44	5.11	525	160	
A15	9/21/2009	F21	11:19	11:32	0	75	Persulfate	18	13.5	22.92	13	5.77	600	183	
A15	9/22/2009	F21	15:34	16:22	0	300	Persulfate	18	12.5	91.67	48	6.25	900	275	
A15	10/1/2009	F21	12:33	14:00	0	300	Persulfate	18	12.5	91.67	87	3.45	1200	367	
A15	10/7/2009	F21	15:02	15:41	0	300	Persulfate	18	13.5	91.67	39	7.69	1500	458	
A15	10/14/2009	F21	12:01	12:42	0	225	Persulfate	18	13	68.75	41	5.49	1725	527	
A15	**10/15/2009**	**F21**	**11:09**	**12:23**	**0**	**300**	**Persulfate**	**18**	**12.5**	**91.67**	**74**	**4.05**	**2025**	**619**	
A15	9/10/2009	H19	14:20	15:02	0	300	Persulfate	18	13.5	91.67	42	7.14	300	91.7	
A15	9/18/2009	H19	13:06	14:09	0	300	Persulfate	18	13	91.67	63	4.76	600	183	
A15	9/23/2009	H19	11:11	12:19	0	300	Persulfate	18	12	91.67	68	4.41	900	275	
A15	10/1/2009	H19	10:41	12:06	0	300	Persulfate	18	12.5	91.67	85	3.53	1200	367	
A15	10/6/2009	H19	14:08	15:22	0	300	Persulfate	18	12.5	91.67	74	4.05	1500	458	
A15	**10/14/2009**	**H19**	**9:56**	**10:48**	**0**	**225**	**Persulfate**	**18**	**12.5**	**68.75**	**52**	**4.33**	**1725**	**527**	
A15	9/10/2009	H21	16:30	17:19	0	300	Persulfate	18	13.5	91.67	49	6.12	300	91.7	
A15	9/21/2009	H21	9:13	10:31	0	300	Persulfate	18	12	91.67	78	3.85	600	183	
A15	9/22/2009	H21	13:58	14:57	0	300	Persulfate	18	13.5	91.67	59	5.08	900	275	
A15	10/2/2009	H21	10:03	11:02	0	300	Persulfate	18	12	91.67	59	5.08	1200	367	
A15	10/8/2009	H21	13:26	14:34	0	300	Persulfate	18	12	91.67	68	4.41	1500	458	
A15	10/13/2009	H21	14:05	14:22	0	75	Persulfate	18	12.5	22.92	17	4.41	1575	481	
A15	10/13/2009	H21	14:30	14:38	0	50	Persulfate	18	12.5	15.28	8	6.25	1625	497	
A15	10/14/2009	H21	13:55	14:02	0	25	Persulfate	18	13	7.64	7	3.57	1650	504	
A15	10/14/2009	H21	11:21	11:47	0	100	Persulfate	18	12.5	30.56	26	3.85	1750	535	
A15	**10/15/2009**	**H21**	**9:46**	**10:56**	**0**	**300**	**Persulfate**	**18**	**13.5**	**91.67**	**70**	**4.29**	**2050**	**626**	
A15	9/10/2009	H22	14:20	15:25	0	300	Persulfate	18	13.5	91.67	65	4.62	300	91.7	
A15	9/21/2009	H22	12:37	13:49	0	300	Persulfate	18	13	91.67	72	4.17	600	183	
A15	9/22/2009	H22	12:18	13:35	0	300	Persulfate	18	13.5	91.67	77	3.90	900	275	
A15	10/5/2009	H22	13:04	14:32	0	300	Persulfate	18	12	91.67	88	3.41	1200	367	
A15	10/8/2009	H22	11:41	12:53	0	300	Persulfate	18	12	91.67	72	4.17	1500	458	

Table 4-1 (cont.)
Area A - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Injection Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
A15	10/14/2009	H22	10:02	11:09	0	225	Persulfate	18	13	68.75	67	3.36	1725	527	
A15	**10/15/2009**	**H22**	**12:28**	**13:34**	**0**	**300**	**Persulfate**	**18**	**12**	**91.67**	**66**	**4.55**	**2025**	**619**	
A15	9/11/2009	I19	10:25	11:19	0	300	Persulfate	18	12.5	91.67	54	5.56	300	91.7	
A15	9/18/2009	I19	14:24	15:48	0	300	Persulfate	18	13.5	91.67	84	3.57	600	183	
A15	9/23/2009	I19	9:30	10:25	0	300	Persulfate	18	13.5	91.67	55	5.45	900	275	
A15	10/5/2009	I19	10:27	12:24	0	300	Persulfate	18	13	91.67	117	2.56	1200	367	
A15	10/7/2009	I19	15:18	16:02	0	300	Persulfate	18	13	91.67	44	6.82	1500	458	
A15	10/14/2009	I19	13:55	14:02	0	25	Persulfate	18	13	7.64	7	3.57	1525	466	
A15	**10/14/2009**	**I19**	**11:58**	**13:05**	**0**	**200**	**Persulfate**	**18**	**12.5**	**61.11**	**67**	**2.99**	**1725**	**527**	
A15	9/11/2009	I21	9:08	9:58	0	300	Persulfate	18	13.5	91.67	50	6.00	300	91.7	
A15	9/21/2009	I21	11:14	12:18	0	300	Persulfate	18	13.5	91.67	64	4.69	600	183	
A15	9/22/2009	I21	9:06	10:08	0	300	Persulfate	18	13	91.67	62	4.84	900	275	
A15	10/2/2009	I21	12:18	13:23	0	300	Persulfate	18	12	91.67	65	4.62	1200	367	
A15	10/8/2009	I21	14:56	15:56	0	300	Persulfate	18	13	91.67	60	5.00	1500	458	
A15	**10/13/2009**	**I21**	**13:10**	**14:00**	**0**	**225**	**Persulfate**	**18**	**12.5**	**68.75**	**50**	**4.50**	**1725**	**528**	
A15	9/11/2009	I22	10:32	11:19	0	300	Persulfate	18	13	91.67	47	6.38	300	91.7	
A15	9/21/2009	I22	14:05	15:11	0	300	Persulfate	18	12.5	91.67	66	4.55	600	183	
A15	9/22/2009	I22	10:26	11:19	0	300	Persulfate	18	12.5	91.67	53	5.66	900	275	
A15	10/2/2009	I22	14:23	15:23	0	300	Persulfate	18	12.5	91.67	60	5.00	1200	367	
A15	10/5/2009	I22	15:09	16:02	0	300	Persulfate	18	12.5	91.67	53	5.66	1500	458	
A15	**10/14/2009**	**I22**	**13:00**	**13:52**	**0**	**225**	**Persulfate**	**18**	**13**	**68.75**	**52**	**4.33**	**1725**	**527**	
A15	9/10/2009	J20	14:14	15:08	0	300	Persulfate	18	13	91.67	54	5.56	300	91.7	
A15	9/18/2009	J20	10:25	10:51	0	100	Persulfate	18	13	30.56	26	3.85	400	122	Breakout around well casing
A15	9/18/2009	J20	13:24	13:37	0	25	Persulfate	18	13.5	7.64	13	1.92	425	130	Breakout around well casing
A15	9/21/2009	J20	11:35	12:33	0	75	Persulfate	18	12.5	22.92	58	1.29	500	153	Breakout around well casing
A15	9/22/2009	J20	14:53	15:08	0	25	Persulfate	18	12	7.64	15	1.67	525	160	Breakout around well casing
A15	9/23/2009	J20	14:22	14:34	0	25	Persulfate	18	13	7.64	12	2.08	550	168	Breakout around well casing
A15	10/1/2009	J20	9:05	12:12	0	250	Persulfate	18	12.5	76.39	187	1.34	800	244	
A15	10/5/2009	J20	9:46	10:45	0	100	Persulfate	18	13	30.56	59	1.69	900	275	Leaked to surface
A15	10/6/2009	J20	9:53	12:12	0	200	Persulfate	18	13	61.11	139	1.44	1100	336	
A15	10/8/2009	J20	13:18	14:10	0	75	Persulfate	18	13	22.92	52	1.44	1175	359	
A15	**10/14/2009**	**J20**	**9:46**	**11:57**	**0**	**100**	**Persulfate**	**18**	**12**	**30.56**	**131**	**0.76**	**1275**	**390**	
A15	9/10/2009	J22	16:10	16:58	0	300	Persulfate	18	13.5	91.67	48	6.25	300	91.7	
A15	9/21/2009	J22	9:20	10:48	0	300	Persulfate	18	12.5	91.67	88	3.41	600	183	
A15	9/22/2009	J22	12:31	13:38	0	300	Persulfate	18	13	91.67	67	4.48	900	275	
A15	10/5/2009	J22	10:47	11:30	0	200	Persulfate	18	13.5	61.11	43	4.65	1100	336	
A15	10/6/2009	J22	9:22	9:49	0	100	Persulfate	18	13	30.56	27	3.70	1200	367	
A15	10/8/2009	J22	11:59	12:49	0	300	Persulfate	18	13	91.67	50	6.00	1500	458	
A15	10/13/2009	J22	14:05	14:22	0	75	Persulfate	18	12.5	22.92	17	4.41	1575	481	
A15	**10/14/2009**	**J22**	**11:50**	**12:23**	**0**	**150**	**Persulfate**	**18**	**12.5**	**45.83**	**33**	**4.55**	**1725**	**527**	
A15	9/11/2009	J23	9:17	10:07	0	300	Persulfate	18	13	91.67	50	6.00	300	91.7	
A15	9/21/2009	J23	11:07	12:19	0	300	Persulfate	18	13.5	91.67	72	4.17	600	183	
A15	9/22/2009	J23	13:45	14:32	0	300	Persulfate	18	13.5	91.67	47	6.38	900	275	

Table 4-1 (cont.)
Area A - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Injection Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
A15	10/2/2009	J23	12:18	13:25	0	300	Persulfate	18	12.5	91.67	67	4.48	1200	367	
A15	10/7/2009	J23	15:18	16:04	0	300	Persulfate	18	13.5	91.67	46	6.52	1500	458	
A15	10/14/2009	J23	14:42	12:54	0	75	Persulfate	18	13	22.92	-108	-0.69	1575	481	
A15	10/14/2009	J23	13:55	14:02	0	25	Persulfate	18	13	7.64	7	3.57	1600	489	
A15	10/14/2009	J23	12:28	12:40	0	50	Persulfate	18	12.5	15.28	12	4.17	1650	504	
A15	**10/14/2009**	**J23**	**12:55**	**13:11**	**0**	**75**	**Persulfate**	**18**	**12**	**22.92**	**16**	**4.69**	**1725**	**527**	
A15	9/11/2009	K20	10:39	11:29	0	300	Persulfate	18	13.5	91.67	50	6.00	300	91.7	
A15	9/18/2009	K20	9:12	10:09	0	300	Persulfate	18	12.5	91.67	57	5.26	600	183	
A15	9/22/2009	K20	9:20	10:10	0	300	Persulfate	18	12.5	91.67	50	6.00	900	275	
A15	10/2/2009	K20	10:12	11:12	0	300	Persulfate	18	12	91.67	60	5.00	1200	367	
A15	10/8/2009	K20	11:49	12:47	0	300	Persulfate	18	12	91.67	58	5.17	1500	458	
A15	**10/14/2009**	**K20**	**11:44**	**12:43**	**0**	**225**	**Persulfate**	**18**	**12**	**68.75**	**59**	**3.81**	**1725**	**527**	
A15	9/10/2009	K22	14:04	14:51	0	300	Persulfate	18	13.5	91.67	47	6.38	300	91.7	
A15	9/17/2009	K22	15:01	16:16	0	300	Persulfate	18	13	91.67	75	4.00	600	183	
A15	9/21/2009	K22	12:37	13:50	0	300	Persulfate	18	13.5	91.67	73	4.11	900	275	
A15	9/30/2009	K22	15:38	16:45	0	300	Persulfate	18	13	91.67	67	4.48	1200	367	
A15	10/6/2009	K22	13:20	14:18	0	300	Persulfate	18	12	91.67	58	5.17	1500	458	
A15	**10/13/2009**	**K22**	**13:10**	**14:00**	**0**	**225**	**Persulfate**	**18**	**12.5**	**68.75**	**50**	**4.50**	**1725**	**527**	
A15	9/11/2009	L20	9:24	10:19	0	300	Persulfate	18	13.5	91.67	55	5.45	300	91.7	
A15	9/17/2009	L20	13:48	14:49	20	300	Persulfate	18	12.5	91.67	61	4.92	600	183	
A15	9/21/2009	L20	13:57	15:12	0	300	Persulfate	18	12.5	91.67	75	4.00	900	275	
A15	9/30/2009	L20	13:23	14:38	0	300	Persulfate	18	12	91.67	75	4.00	1200	367	
A15	10/7/2009	L20	15:02	15:43	0	300	Persulfate	18	12	91.67	41	7.32	1500	458	
A15	**10/8/2009**	**L20**	**14:12**	**15:00**	**0**	**225**	**Persulfate**	**18**	**13**	**68.75**	**48**	**4.69**	**1725**	**527**	
A15	9/10/2009	L22	16:08	16:58	0	300	Persulfate	18	13.5	91.67	50	6.00	300	91.7	
A15	9/18/2009	L22	13:38	14:26	0	225	Persulfate	18	13.5	68.75	48	4.69	525	160	
A15	9/18/2009	L22	14:37	14:51	0	75	Persulfate	18	13.5	22.92	14	5.36	600	183	
A15	9/22/2009	L22	10:48	11:52	0	300	Persulfate	18	13	91.67	64	4.69	900	275	
A15	9/30/2009	L22	10:58	12:22	0	300	Persulfate	18	13	91.67	84	3.57	1200	367	
A15	10/6/2009	L22	14:26	15:31	0	300	Persulfate	18	13.5	91.67	65	4.62	1500	458	
A15	**10/14/2009**	**L22**	**9:46**	**10:54**	**0**	**225**	**Persulfate**	**18**	**12.5**	**68.75**	**68**	**3.31**	**1725**	**527**	

Area A	# of Days	Number of Wells	Time (start)	Time (stop)	Average Pressure (psi)	Total Injection Volume (gal.)	Type of Oxidant	Oxidant Concentration (%)	Average pH	Total Volume of Caustic (Gal.)	Average Inj. Time (min.)	Average Flow Rate (gal/min.)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	
Totals:	**25**	**62**	**NA**	**NA**	**0.26**	**97,200**	**Persulfate**	**18**	**12.7**	**29,700**	**56**	**4.33**	**NA**	**NA**	

Note:

Bold Text Indicates Final Injection for that Individual Well

Table 4-2
Area A - Injection Summary Table by Well - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Well ID	Type of Oxidant	Oxidant Concentration (%)	Persulfate Vol. per Well (gal.)	Caustic Vol. per Well (gal.)
A11	C00	Persulfate	18	1,625	497
A11	D01	Persulfate	18	1,625	497
A11	D02	Persulfate	10	1,925	588
A11	D03	Persulfate	10	1,950	596
A11	D99	Persulfate	18	1,625	497
A11	E00	Persulfate	18	1,625	497
A11	E98	Persulfate	10	1,625	497
A11	F01	Persulfate	18	1,625	497
A11	F02	Persulfate	10	1,950	596
A11	F03	Persulfate	10	1,950	596
A11	F99	Persulfate	18	1,625	497
A12	A03	Persulfate	10	1,700	519
A12	A04	Persulfate	18	1,700	519
A12	B03	Persulfate	18	1,700	519
A12	B04	Persulfate	18	50	15
A13	D06D	Persulfate	18	1,375	420
A13	D07D	Persulfate	18	1,375	420
A13	D08D	Persulfate	18	1,375	420
A13	D09	Persulfate	18	1,375	420
A13	D10	Persulfate	18	1,375	420
A13	D11	Persulfate	18	1,375	420
A13	F06	Persulfate	18	1,375	420
A13	F07D	Persulfate	18	1,375	420
A13	F08	Persulfate	18	1,375	420
A13	F09	Persulfate	18	1,375	420
A13	F10	Persulfate	18	1,375	420
A13	F11	Persulfate	18	1,375	420

Table 4-2 (cont.)
Area A ISCO Data by Well - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Well ID	Type of Oxidant	Oxidant Concentration (%)	Persulfate Vol. per Well (gal.)	Caustic Vol. per Well (gal.)
A14	H12	Persulfate	18	1,425	458
A14	F13	Persulfate	18	1,500	435
A14	F14	Persulfate	18	1,425	435
A14	F15	Persulfate	18	1,425	435
A14	F16	Persulfate	18	1,425	435
A14	F17	Persulfate	18	1,425	435
A14	H10	Persulfate	18	1,425	435
A14	H11	Persulfate	18	1,425	435
A14	H13	Persulfate	18	1,425	435
A14	H14	Persulfate	18	1,425	435
A14	H15	Persulfate	18	1,425	435
A14	H16	Persulfate	18	1,425	435
A14	H17	Persulfate	18	1,425	435
A14	I10	Persulfate	18	1,425	435
A14	I11	Persulfate	18	1,425	435
A14	I12	Persulfate	18	50	15
A14	I13	Persulfate	18	1,425	435
A14	I14	Persulfate	18	1,425	435
A14	I15	Persulfate	18	1,425	435
A14	I16	Persulfate	18	1,425	435
A14	I17	Persulfate	18	1,425	435
A14	J15	Persulfate	18	1,425	435
A15	F19	Persulfate	18	1,725	527
A15	F21	Persulfate	10	2,025	619
A15	H19	Persulfate	18	1,725	527
A15	H21	Persulfate	10	2,050	626
A15	H22	Persulfate	10	2,025	619

Table 4-2 (cont.)
Area A ISCO Data by Well - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Well ID	Type of Oxidant	Oxidant Concentration (%)	Persulfate Vol. per Well (gal.)	Caustic Vol. per Well (gal.)
A15	I19	Persulfate	18	1,725	527
A15	I21	Persulfate	18	1,725	527
A15	I22	Persulfate	18	1,725	527
A15	J20	Persulfate	18	1,275	390
A15	J22	Persulfate	18	1,725	527
A15	J23	Persulfate	18	1,725	527
A15	K20	Persulfate	18	1,725	527
A15	K22	Persulfate	18	1,725	527
A15	L20	Persulfate	18	1,725	527
A15	L22	Persulfate	18	1,725	527

Table 4-3
Area B - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Amount (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Inj. Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
B	10/13/2009	F01B	13:19	14:07	15	65	Persulfate	18	12.5	19.86	48	1.35	65	20	
B	**10/14/2009**	**F01B**	**9:58**	**12:00**	**15**	**170**	**Persulfate**	**18**	**12**	**51.95**	**122**	**1.39**	**235**	**72**	
B11	9/30/2009	E04	14:15	14:57	0	100	Persulfate	18	12.5	30.56	42	2.38	100	31	
B11	10/2/2009	E04	13:28	14:12	10	75	Persulfate	18	12.5	22.92	44	1.70	175	53	
B11	10/7/2009	E04	15:41	16:54	0	150	Persulfate	18	12.5	45.84	73	2.05	325	99	
B11	10/8/2009	E04	14:50	16:47	5	150	Persulfate	18	12.5	45.84	117	1.28	475	145	
B11	**10/12/2009**	**E04**	**15:31**	**16:21**	**0**	**75**	**Persulfate**	**18**	**12.5**	**22.92**	**50**	**1.50**	**550**	**168**	
B11	10/2/2009	F03S	12:14	13:09	0	100	Persulfate	18	13.5	30.56	55	1.82	100	31	
B11	10/5/2009	F03S	12:20	14:02	0	150	Persulfate	18	12.5	45.84	102	1.47	250	76	
B11	10/8/2009	F03S	10:25	12:43	0	150	Persulfate	18	12.5	45.84	138	1.09	400	122	
B11	10/9/2009	F03S	12:44	13:28	0	65	Persulfate	18	13.5	19.86	44	1.48	465	142	
B11	10/9/2009	F03S	11:45	12:34	0	65	Persulfate	18	13.5	19.86	49	1.33	530	162	
B11	10/12/2009	F03S	14:58	15:10	0	15	Persulfate	18	12.5	4.58	12	1.25	545	167	
B11	**10/13/2009**	**F03S**	**11:36**	**11:41**	**0**	**5**	**Persulfate**	**18**	**12**	**1.53**	**5**	**1.00**	**550**	**168**	
B11	10/2/2009	F05D	10:44	12:12	0	100	Persulfate	18	13.5	30.56	88	1.14	100	31	
B11	10/5/2009	F05D	12:20	13:58	5	150	Persulfate	18	13	45.84	98	1.53	250	76	
B11	10/8/2009	F05D	12:44	14:32	5	135	Persulfate	18	12.5	41.25	108	1.25	385	118	
B11	10/12/2009	F05D	10:15	12:02	8	130	Persulfate	18	12.5	39.72	107	1.21	515	157	
B11	**10/13/2009**	**F05D**	**11:51**	**12:15**	**8**	**35**	**Persulfate**	**18**	**13**	**10.69**	**24**	**1.46**	**550**	**168**	
B11	9/30/2009	F05S	11:07	13:47	0	225	Persulfate	18	12	68.75	160	1.41	225	69	
B11	10/7/2009	F05S	13:58	15:40	0	110	Persulfate	18	12.5	33.61	102	1.08	335	102	
B11	10/9/2009	F05S	11:07	12:28	0	100	Persulfate	18	12.5	30.56	81	1.23	435	133	
B11	10/9/2009	F05S	13:07	13:31	0	35	Persulfate	18	12.5	10.69	24	1.46	470	144	
B11	**10/13/2009**	**F05S**	**10:35**	**11:35**	**0**	**80**	**Persulfate**	**18**	**13**	**24.45**	**60**	**1.33**	**550**	**168**	
B11	9/30/2009	G02	13:17	15:12	5	100	Persulfate	18	12.5	30.56	115	0.87	100	31	
B11	10/2/2009	G02	13:28	14:30	0	75	Persulfate	18	12.5	22.92	62	1.21	175	53	
B11	10/5/2009	G02	14:52	16:32	0	150	Persulfate	18	12.5	45.84	100	1.50	325	99	
B11	10/8/2009	G02	11:27	11:53	0	30	Persulfate	18	12	9.17	26	1.15	355	108	Leaked to Surface
B11	10/9/2009	G02	9:23	9:46	0	20	Persulfate	18	12.5	6.11	23	0.87	375	115	Leaked to Surface
B11	10/9/2009	G02	12:44	13:06	0	15	Persulfate	18	12.5	4.58	22	0.68	390	119	Leaked to Surface
B11	10/12/2009	G02	14:38	14:57	0	20	Persulfate	18	12.5	6.11	19	1.05	410	125	Leaked to Surface
B11	10/12/2009	G02	9:45	10:14	0	25	Persulfate	18	12.5	7.64	29	0.86	435	133	Leaked to Surface
B11	10/13/2009	G02	12:16	12:35	0	15	Persulfate	18	13	4.58	19	0.79	450	138	Leaked to Surface
B11	10/13/2009	G02	10:17	10:34	0	15	Persulfate	18	13	4.58	17	0.88	465	142	Leaked to Surface
B11	10/14/2009	G02	11:31	11:43	0	15	Persulfate	18	13.5	4.58	12	1.25	480	147	
B11	**10/14/2009**	**G02**	**9:36**	**9:57**	**0**	**20**	**Persulfate**	**18**	**13.5**	**6.11**	**21**	**0.95**	**500**	**153**	

Table 4-3 (cont.)
Area B - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Amount (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Inj. Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
B11	10/2/2009	G04S	9:40	10:40	0	100	Persulfate	18	12.5	30.56	60	1.67	100	31	
B11	10/6/2009	G04S	14:21	15:30	0	110	Persulfate	18	12.5	33.61	69	1.59	210	64	
B11	10/8/2009	G04S	14:50	16:57	5	150	Persulfate	18	12.5	45.84	127	1.18	360	110	
B11	10/12/2009	G04S	12:16	13:35	0	100	Persulfate	18	13.5	30.56	79	1.27	460	141	
B11	**10/13/2009**	**G04S**	**10:38**	**11:50**	**0**	**90**	**Persulfate**	**18**	**12.5**	**27.50**	**72**	**1.25**	**550**	**169**	
B11	10/2/2009	H03	10:42	12:09	0	100	Persulfate	18	12.5	30.56	87	1.15	100	31	
B11	10/5/2009	H03	9:56	11:27	0	145	Persulfate	18	13	44.31	91	1.59	245	75	
B11	10/8/2009	H03	11:54	13:11	0	90	Persulfate	18	12	27.50	77	1.17	335	102	
B11	10/12/2009	H03	10:09	12:15	0	160	Persulfate	18	13.5	48.89	126	1.27	495	151	
B11	**10/13/2009**	**H03**	**11:42**	**12:20**	**0**	**55**	**Persulfate**	**18**	**12**	**16.81**	**38**	**1.45**	**550**	**169**	
B11	9/30/2009	J03M	11:07	13:16	10	125	Persulfate	18	12.5	38.20	129	0.97	125	38	Breakout around well casing
B11	10/2/2009	J03M	14:05	14:20	0	25	Persulfate	18	13	7.64	15	1.67	150	46	
B11	10/5/2009	J03M	9:50	9:55	0	5	Persulfate	18	12.5	1.53	5	1.00	155	47	Leaked to Surface
B11	10/6/2009	J03M	13:08	13:47	0	40	Persulfate	18	13	12.22	39	1.03	195	60	Leaked to Surface
B11	10/7/2009	J03M	13:43	14:13	0	30	Persulfate	18	13	9.17	30	1.00	225	69	Leaked to Surface
B11	10/8/2009	J03M	10:25	10:36	0	15	Persulfate	18	12	4.58	11	1.36	240	73	Leaked to Surface
B11	10/9/2009	J03M	9:00	9:23	0	20	Persulfate	18	12	6.11	23	0.87	260	79	Leaked to Surface
B11	10/9/2009	J03M	12:21	12:27	0	5	Persulfate	18	12	1.53	6	0.83	265	81	Leaked to Surface
B11	10/12/2009	J03M	14:27	14:36	0	5	Persulfate	18	12.5	1.53	9	0.56	270	83	Leaked to Surface
B11	10/12/2009	J03M	9:20	9:35	0	10	Persulfate	18	12	3.06	15	0.67	280	86	Leaked to Surface
B11	10/13/2009	J03M	10:00	10:13	0	10	Persulfate	18	12	3.06	13	0.77	290	89	Leaked to Surface
B11	**10/14/2009**	**J03M**	**9:25**	**9:32**	**0**	**5**	**Persulfate**	**18**	**12.5**	**1.53**	**7**	**0.71**	**295**	**90**	
B11	10/2/2009	J05	9:32	10:42	0	100	Persulfate	18	12.5	30.56	70	1.43	100	31	
B11	10/5/2009	J05	14:52	16:22	0	150	Persulfate	18	12.5	45.84	90	1.67	250	76	
B11	10/7/2009	J05	16:56	17:20	0	50	Persulfate	18	13	15.28	24	2.08	300	92	
B11	10/9/2009	J05	9:47	11:06	0	100	Persulfate	18	12.5	30.56	79	1.27	400	122	
B11	10/12/2009	J05	12:03	13:33	0	130	Persulfate	18	12.5	39.72	90	1.44	530	162	
B11	**10/13/2009**	**J05**	**11:36**	**11:50**	**0**	**20**	**Persulfate**	**18**	**13**	**6.11**	**14**	**1.43**	**550**	**168**	
B11	9/30/2009	K04S	15:45	16:33	0	100	Persulfate	18	13	30.56	48	2.08	100	31	
B11	10/2/2009	K04S	14:21	15:25	0	125	Persulfate	18	13	38.20	64	1.95	225	69	
B11	10/8/2009	K04S	16:00	17:00	5	75	Persulfate	18	12.5	22.92	60	1.25	300	92	
B11	10/9/2009	K04S	12:38	13:26	5	50	Persulfate	18	12	15.28	48	1.04	350	107	
B11	10/9/2009	K04S	11:05	12:20	5	100	Persulfate	18	12	30.56	75	1.33	450	138	
B11	10/12/2009	K04S	15:51	16:27	5	50	Persulfate	18	12.5	15.28	36	1.39	500	153	
B11	**10/13/2009**	**K04S**	**10:51**	**11:35**	**5**	**50**	**Persulfate**	**18**	**12**	**15.28**	**44**	**1.14**	**550**	**168**	
B11	10/2/2009	L03D	9:17	10:55	15	100	Persulfate	18	13.5	30.56	98	1.02	100	31	

Table 4-3 (cont.)
Area B - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Amount (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Inj. Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
B11	10/5/2009	L03D	12:20	13:56	10	150	Persulfate	18	12.5	45.84	96	1.56	250	76	
B11	10/8/2009	L03D	10:37	12:51	10	150	Persulfate	18	12	45.84	134	1.12	400	122	
B11	10/12/2009	L03D	10:04	10:59	10	60	Persulfate	18	12	18.33	55	1.09	460	141	Leaked to Surface
B11	**10/12/2009**	**L03D**	**14:49**	**15:50**	**10**	**90**	**Persulfate**	**18**	**12.5**	**27.50**	**61**	**1.48**	**550**	**168**	**Leaked to Surface**
B11	9/30/2009	M02	10:10	11:00	0	75	Persulfate	18	12	22.92	50	1.50	75	23	Breakout away from well casing
B11	10/2/2009	M02	11:47	13:07	0	125	Persulfate	18	13.5	38.20	80	1.56	200	61	Leaked to Surface
B11	10/5/2009	M02	9:43	10:00	0	15	Persulfate	18	13	4.58	17	0.88	215	66	Leaked to Surface
B11	10/6/2009	M02	13:08	14:40	0	60	Persulfate	18	13	18.33	92	0.65	275	84	Leaked to Surface
B11	10/7/2009	M02	15:59	16:29	0	40	Persulfate	18	13	12.22	30	1.33	315	96	Leaked to Surface
B11	10/8/2009	M02	10:10	10:24	0	15	Persulfate	18	13	4.58	14	1.07	330	101	Leaked to Surface
B11	10/9/2009	M02	12:28	12:37	0	5	Persulfate	18	12	1.53	9	0.56	335	102	Leaked to Surface
B11	10/9/2009	M02	9:24	9:33	0	10	Persulfate	18	12	3.06	9	1.11	345	105	Leaked to Surface
B11	10/12/2009	M02	9:36	10:03	0	20	Persulfate	18	12	6.11	27	0.74	365	112	Leaked to Surface
B11	10/12/2009	M02	14:37	14:48	0	5	Persulfate	18	12.5	1.53	11	0.45	370	113	Leaked to Surface
B11	10/13/2009	M02	10:14	10:28	0	15	Persulfate	18	12	4.58	14	1.07	385	118	Leaked to Surface
B11	**10/14/2009**	**M02**	**9:33**	**9:47**	**0**	**15**	**Persulfate**	**18**	**12.5**	**4.58**	**14**	**1.07**	**400**	**122**	
B11	10/2/2009	N03D	10:54	12:00	0	100	Persulfate	18	13	30.56	66	1.52	100	31	
B11	10/5/2009	N03D	10:26	11:46	0	100	Persulfate	18	13	30.56	80	1.25	200	61	
B11	10/6/2009	N03D	15:01	15:54	0	70	Persulfate	18	13	21.39	53	1.32	270	83	
B11	10/8/2009	N03D	11:05	13:14	0	150	Persulfate	18	13	45.84	129	1.16	420	128	
B11	10/12/2009	N03D	9:57	11:55	5	125	Persulfate	18	11.5	38.20	118	1.06	545	167	
B11	10/13/2009	N03D	14:17	14:21	5	5	Persulfate	18	12	1.53	4	1.25	550	168	
B11	**10/14/2009**	**N03D**	**10:20**	**12:03**	**30**	**120**	**Persulfate**	**18**	**12.5**	**36.67**	**103**	**1.17**	**670**	**205**	
B11	9/30/2009	N03S	15:45	16:48	0	100	Persulfate	18	13	30.56	63	1.59	100	31	
B11	10/2/2009	N03S	14:35	15:39	0	125	Persulfate	18	13	38.20	64	1.95	225	69	
B11	10/7/2009	N03S	14:03	15:58	0	125	Persulfate	18	13	38.20	115	1.09	350	107	
B11	10/9/2009	N03S	9:47	11:15	0	110	Persulfate	18	13.5	33.61	88	1.25	460	141	
B11	10/13/2009	N03S	10:35	11:47	5	90	Persulfate	18	12	27.50	72	1.25	550	168	
B11	**10/14/2009**	**N03S**	**12:04**	**13:28**	**5**	**120**	**Persulfate**	**18**	**12.5**	**36.67**	**84**	**1.43**	**670**	**205**	
B11	9/30/2009	O02D	11:07	14:45	5	200	Persulfate	18	13.5	61.11	218	0.92	200	61	
B11	10/7/2009	O02D	13:40	15:30	10	130	Persulfate	18	13.5	39.72	110	1.18	330	101	
B11	10/9/2009	O02D	12:49	13:40	0	70	Persulfate	18	13.5	21.39	51	1.37	400	122	
B11	10/9/2009	O02D	11:16	12:30	0	80	Persulfate	18	13.5	24.45	74	1.08	480	147	
B11	10/12/2009	O02D	14:41	15:30	15	70	Persulfate	18	12.5	21.39	49	1.43	550	168	
B11	**10/14/2009**	**O02D**	**11:28**	**13:21**	**15**	**150**	**Persulfate**	**18**	**12**	**45.84**	**113**	**1.33**	**700**	**215**	
B11	10/2/2009	O02S	12:01	13:13	5	100	Persulfate	18	13	30.56	72	1.39	100	31	

Table 4-3 (cont.)
Area B - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Amount (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Inj. Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
B11	10/5/2009	O02S	14:52	16:00	0	120	Persulfate	18	12.5	36.67	68	1.76	220	67	Leaked to Surface
B11	10/6/2009	O02S	14:41	15:00	0	20	Persulfate	18	13	6.11	19	1.05	240	73	Leaked to Surface
B11	10/7/2009	O02S	13:25	13:39	0	20	Persulfate	18	13.5	6.11	14	1.43	260	79	Leaked to Surface
B11	10/8/2009	O02S	10:49	11:04	0	15	Persulfate	18	13	4.58	15	1.00	275	84	Leaked to Surface
B11	10/9/2009	O02S	9:17	9:35	0	20	Persulfate	18	13.5	6.11	18	1.11	295	90	Leaked to Surface
B11	10/9/2009	O02S	12:39	12:48	0	5	Persulfate	18	13.5	1.53	9	0.56	300	92	Leaked to Surface
B11	10/12/2009	O02S	9:20	9:37	0	15	Persulfate	18	11.5	4.58	17	0.88	315	96	Leaked to Surface
B11	10/12/2009	O02S	14:27	14:30	0	0	Persulfate	18	12.5	0.00	3	0.00	315	96	Leaked to Surface
B11	10/13/2009	O02S	10:00	10:10	0	5	Persulfate	18	12	1.53	10	0.50	320	98	Leaked to Surface
B11	**10/14/2009**	**O02S**	**9:25**	**9:32**	**0**	**5**	**Persulfate**	**18**	**12**	**1.53**	**7**	**0.71**	**325**	**99**	
B11	10/2/2009	O04D	9:21	10:53	10	100	Persulfate	18	13	30.56	92	1.09	100	31	
B11	10/5/2009	O04D	16:00	16:24	0	30	Persulfate	18	0	9.17	24	1.25	130	40	
B11	10/6/2009	O04D	14:09	16:00	8	100	Persulfate	18	12.5	30.56	111	0.90	230	70	
B11	10/7/2009	O04D	16:30	17:25	5	60	Persulfate	18	13	18.33	55	1.09	290	89	
B11	10/8/2009	O04D	13:15	14:37	5	100	Persulfate	18	13	30.56	82	1.22	390	119	
B11	10/12/2009	O04D	11:56	13:42	10	145	Persulfate	18	11.5	44.31	106	1.37	535	163	
B11	**10/13/2009**	**O04D**	**11:48**	**12:06**	**5**	**15**	**Persulfate**	**18**	**12**	**4.58**	**18**	**0.83**	**550**	**168**	
B11	9/30/2009	O04S	10:08	11:00	5	100	Persulfate	18	13.5	30.56	52	1.92	100	31	Breakout away from well casing
B11	10/2/2009	O04S	14:05	14:35	0	25	Persulfate	18	13	7.64	30	0.83	125	38	
B11	10/5/2009	O04S	10:01	10:25	0	35	Persulfate	18	13	10.69	24	1.46	160	49	Leaked to Surface
B11	10/6/2009	O04S	13:08	14:08	0	50	Persulfate	18	12.5	15.28	60	0.83	210	64	Leaked to Surface
B11	10/7/2009	O04S	13:43	14:02	0	25	Persulfate	18	13	7.64	19	1.32	235	72	Leaked to Surface
B11	10/8/2009	O04S	10:10	10:48	0	35	Persulfate	18	13	10.69	38	0.92	270	83	Leaked to Surface
B11	10/9/2009	O04S	9:36	9:46	0	10	Persulfate	18	13.5	3.06	10	1.00	280	86	Leaked to Surface
B11	10/9/2009	O04S	12:31	12:38	0	5	Persulfate	18	13.5	1.53	7	0.71	285	87	Leaked to Surface
B11	10/12/2009	O04S	14:31	14:40	0	5	Persulfate	18	12.5	1.53	9	0.56	290	89	Leaked to Surface
B11	10/12/2009	O04S	9:38	9:56	0	15	Persulfate	18	11.5	4.58	18	0.83	305	93	Leaked to Surface
B11	10/13/2009	O04S	10:11	10:34	0	20	Persulfate	18	12	6.11	23	0.87	325	99	Leaked to Surface
B11	**10/14/2009**	**O04S**	**9:33**	**9:59**	**0**	**20**	**Persulfate**	**18**	**12**	**6.11**	**26**	**0.77**	**345**	**105**	
B12	9/30/2009	E02D	15:45	16:44	0	100	Persulfate	18	13	30.56	59	1.69	100	31	
B12	10/2/2009	E02D	14:13	15:27	10	75	Persulfate	18	12.5	22.92	74	1.01	175	53	
B12	10/5/2009	E02D	10:01	11:42	0	135	Persulfate	18	13	41.25	101	1.34	310	95	
B12	10/7/2009	E02D	15:13	17:20	5	190	Persulfate	18	13	58.06	127	1.50	500	153	
B12	10/8/2009	E02D	14:50	16:53	5	150	Persulfate	18	13	45.84	123	1.22	650	199	
B12	10/12/2009	E02D	12:09	13:30	5	120	Persulfate	18	12	36.67	81	1.48	770	235	
B12	10/13/2009	E02D	13:04	13:18	5	20	Persulfate	18	12.5	6.11	14	1.43	790	241	

Table 4-3 (cont.)
Area B - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Amount (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Inj. Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
B12	**10/14/2009**	**E02D**	**11:44**	**13:20**	**5**	**125**	**Persulfate**	**18**	**13.5**	**38.20**	**96**	**1.30**	**915**	**281**	
B12	9/30/2009	F03D	9:25	11:00	0	75	Persulfate	18	12.5	22.92	95	0.79	75	23	Breakout around well casing
B12	10/2/2009	F03D	14:30	14:45	0	25	Persulfate	18	12.5	7.64	15	1.67	100	31	
B12	10/5/2009	F03D	9:43	10:00	0	15	Persulfate	18	13	4.58	17	0.88	115	35	Leaked to Surface
B12	10/6/2009	F03D	13:08	14:19	5	40	Persulfate	18	12.5	12.22	71	0.56	155	47	Leaked to Surface
B12	10/7/2009	F03D	13:25	13:57	0	40	Persulfate	18	12.5	12.22	32	1.25	195	60	Leaked to Surface
B12	10/8/2009	F03D	10:10	10:24	0	15	Persulfate	18	12.5	4.58	14	1.07	210	64	Leaked to Surface
B12	10/9/2009	F03D	12:29	12:43	0	5	Persulfate	18	12.5	1.53	14	0.36	215	66	Leaked to Surface
B12	10/9/2009	F03D	8:53	9:22	0	25	Persulfate	18	12.5	7.64	29	0.86	240	73	Leaked to Surface
B12	10/12/2009	F03D	9:20	9:44	0	15	Persulfate	18	12.5	4.58	24	0.63	255	78	Leaked to Surface
B12	10/12/2009	F03D	14:27	14:37	0	5	Persulfate	18	12.5	1.53	10	0.50	260	79	Leaked to Surface
B12	10/13/2009	F03D	10:00	10:16	0	10	Persulfate	18	13	3.06	16	0.63	270	83	Leaked to Surface
B12	**10/14/2009**	**F03D**	**9:25**	**9:35**	**0**	**5**	**Persulfate**	**18**	**13.5**	**1.53**	**10**	**0.50**	**275**	**85**	
B12	9/30/2009	G04D	13:28	15:23	0	200	Persulfate	18	12.5	61.11	115	1.74	200	61	
B12	10/2/2009	G04D	14:46	15:27	0	50	Persulfate	18	12.5	15.28	41	1.22	250	76	
B12	10/5/2009	G04D	14:52	16:22	5	150	Persulfate	18	13	45.84	90	1.67	400	122	
B12	10/8/2009	G04D	13:12	14:33	0	100	Persulfate	18	12	30.56	81	1.23	500	153	
B12	10/9/2009	G04D	9:51	11:44	5	130	Persulfate	18	13.5	39.72	113	1.15	630	193	
B12	10/12/2009	G04D	15:11	16:26	5	110	Persulfate	18	12.5	33.61	75	1.47	740	226	
B12	**10/13/2009**	**G04D**	**12:18**	**13:03**	**5**	**50**	**Persulfate**	**18**	**12.5**	**15.28**	**45**	**1.11**	**790**	**242**	
B12	9/30/2009	I04D	9:18	12:33	0	300	Persulfate	18	12.5	91.67	195	1.54	300	92	
B12	10/7/2009	I04D	14:14	15:12	0	80	Persulfate	18	13	24.45	58	1.38	380	116	Leaked to Surface
B12	10/8/2009	I04D	10:10	11:26	0	80	Persulfate	18	12	24.45	76	1.05	460	141	Leaked to Surface
B12	10/9/2009	I04D	12:35	12:43	0	5	Persulfate	18	13.5	1.53	8	0.63	465	142	Leaked to Surface
B12	10/9/2009	I04D	9:17	9:50	0	35	Persulfate	18	13.5	10.69	33	1.06	500	153	Leaked to Surface
B12	10/12/2009	I04D	9:20	10:08	0	40	Persulfate	18	13.5	12.22	48	0.83	540	165	Leaked to Surface
B12	10/12/2009	I04D	14:27	14:37	0	5	Persulfate	18	12.5	1.53	10	0.50	545	167	Leaked to Surface
B12	10/13/2009	I04D	10:00	10:37	0	40	Persulfate	18	12.5	12.22	37	1.08	585	179	Leaked to Surface
B12	**10/14/2009**	**I04D**	**9:25**	**9:57**	**0**	**30**	**Persulfate**	**18**	**12**	**9.17**	**32**	**0.94**	**615**	**188**	
B12	10/2/2009	K04D	10:56	11:45	0	75	Persulfate	18	13.5	22.92	49	1.53	75	23	Breakout around well casing
B12	10/5/2009	K04D	9:50	12:00	0	150	Persulfate	18	13	45.84	130	1.15	225	69	
B12	10/6/2009	K04D	13:48	15:30	5	110	Persulfate	18	13	33.61	102	1.08	335	102	Leaked to Surface
B12	10/7/2009	K04D	15:31	17:24	8	150	Persulfate	18	13.5	45.84	113	1.33	485	148	
B12	10/8/2009	K04D	14:50	15:59	10	75	Persulfate	18	12.5	22.92	69	1.09	560	171	
B12	10/9/2009	K04D	9:34	11:04	10	110	Persulfate	18	12	33.61	90	1.22	670	205	
B12	10/12/2009	K04D	11:00	12:08	8	90	Persulfate	18	12	27.50	68	1.32	760	232	

Table 4-3 (cont.)
Area B - Injection Summary Table by Date - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Amount (gal)	Type of Oxidant	Oxidant Concentration (%)	ph	Caustic	Inj. Time (min.)	Flow Rate (gal/min)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	Comments
B12	**10/13/2009**	**K04D**	**10:29**	**10:50**	**8**	**30**	**Persulfate**	**18**	**12**	**9.17**	**21**	**1.43**	**790**	**241**	
B13	**10/13/2009**	**R03**	**12:07**	**12:22**	**0**	**5**	**Persulfate**	**18**	**12**	**1.53**	**15**	**0.33**	**5**	**2**	**Leaked to Surface**
B13	10/13/2009	Q04	12:28	14:16	6	160	Persulfate	18	12	48.89	108	1.48	160	49	
B13	**10/14/2009**	**Q04**	**10:00**	**11:27**	**6**	**125**	**Persulfate**	**18**	**12**	**38.20**	**87**	**1.44**	**285**	**228**	
B	10/13/2009	D01D	12:21	14:05	10	135	Persulfate	18	12	41.25	104	1.30	135	41	
B	**10/14/2009**	**D01D**	**12:01**	**13:09**	**0**	**100**	**Persulfate**	**18**	**12**	**30.56**	**68**	**1.47**	**235**	**72**	
B	10/13/2009	H05	12:36	14:04	0	125	Persulfate	18	13	38.20	88	1.42	125	38	
B	**10/14/2009**	**H05**	**9:58**	**11:30**	**0**	**135**	**Persulfate**	**18**	**13.5**	**41.25**	**92**	**1.47**	**260**	**79**	
B	10/2/2009	I04S	12:11	13:13	0	100	Persulfate	18	12.5	30.56	62	1.61	100	31	
B	10/5/2009	I04S	12:02	13:53	0	150	Persulfate	18	12.5	45.84	111	1.35	250	76	
B	10/8/2009	I04S	12:52	14:27	0	120	Persulfate	18	12	36.67	95	1.26	370	113	
B	10/12/2009	I04S	14:38	16:27	0	145	Persulfate	18	13.5	44.31	109	1.33	515	157	
B	**10/13/2009**	**I04S**	**11:51**	**12:17**	**0**	**35**	**Persulfate**	**18**	**12.5**	**10.69**	**26**	**1.35**	**550**	**168**	
B	**10/14/2009**	**ME-B01D**	**9:48**	**10:19**	**5**	**40**	**Persulfate**	**18**	**12.5**	**12.22**	**31**	**1.29**	**40**	**12**	

Area B	# of Days	Number of Wells	Time (start)	Time (stop)	Average Pressure	Total Injection Volume (gal.)	Type of Oxidant	Oxidant Concentration (%)	Average Ph	Total Volume of Caustic (gal.)	Average Inj. Time (min.)	Average Flow Rate (gal/min.)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)	
Totals:	**9**	**30**	**NA**	**NA**	**2.35**	**14,400**	**Persulfate**	**18**	**12.5825**	**4400.16**	**58**	**1.19**	**NA**	**NA**	

Note:

Bold Text Indicates Final Injection for that Individual Well

Table 4-4
Area B - Injection Summary Table by Well - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Well ID	Type of Oxidant	Oxidant Concentration (%)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)
B	F01B	Persulfate	18	235	72
B	D01D	Persulfate	18	235	72
B	H05	Persulfate	18	260	79
B	ME-B01D	Persulfate	18	40	12
B11	E04	Persulfate	18	550	168
B11	F03S	Persulfate	18	550	168
B11	F05D	Persulfate	18	550	168
B11	F05S	Persulfate	18	550	168
B11	G02	Persulfate	18	500	153
B11	G04S	Persulfate	18	550	169
B11	H03	Persulfate	18	550	169
B11	J03M	Persulfate	18	295	90
B11	J05	Persulfate	18	550	168
B11	K04S	Persulfate	18	550	168
B11	L03D	Persulfate	18	550	168
B11	M02	Persulfate	18	400	122
B11	N03D	Persulfate	18	670	205
B11	N03S	Persulfate	18	670	205
B11	O02D	Persulfate	18	700	215
B11	O02S	Persulfate	18	325	99
B11	O04D	Persulfate	18	550	168
B11	O04S	Persulfate	18	345	105
B11	I04S	Persulfate	18	550	168
B12	E02D	Persulfate	18	915	281
B12	F03D	Persulfate	18	275	85
B12	G04D	Persulfate	18	790	242

Table 4-4 (cont.)
Area B - Injection Summary Table by Well - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Well ID	Type of Oxidant	Oxidant Concentration (%)	Total Persulfate Vol. per Well (gal.)	Total Caustic Vol. per Well (gal.)
B12	I04D	Persulfate	18	615	188
B12	K04D	Persulfate	18	790	241
B13	R03	Persulfate	18	5	2
B13	Q04	Persulfate	18	285	228

Injection Area	Number of Wells	Type of Oxidant	Oxidant Concentration (%)	Total Volume of Persulfate (gal.)	Total Volume of Caustic (gal.)
B	4	Persulfate	18	770	235
B11	19	Persulfate	18	9,955	3,045
B12	5	Persulfate	18	3,385	1,037
B13	2	Persulfate	18	290	229

Table 4-5
Area B-13 - Peroxide Injection Summary Table - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (start)	Pressure (psi)	Inj. Amount (gal)	Type of Oxidant	Peroxide Concentration (%)	Minutes	Flow Rate (gpm)	Total Peroxide Vol. per Well (gal.)	Total Catalyst Vol. per Well (gal.)	Comments
B13	9/29/2009	Q04	12:05	12:42	10	10	Peroxide	12	37	0.27	10		
B13	9/29/2009	Q04	15:16	15:48	10	20	Peroxide	12	32	0.62	30		
B13	10/1/2009	Q04	14:10	14:31	10	8	Peroxide	12	21	0.38	38		Leaked to Surface
B13	10/2/2009	Q04	7:33	7:54	10	10	Peroxide	12	21	0.48	48		
B13	10/1/2009	Q04	8:14	8:35	10	15	Peroxide Catalyst	0	21	0.71		15	
B13	10/1/2009	Q04	10:11	10:20	0	5	Peroxide Catalyst	0	9	0.56		20	Leaked to Surface
B13	**10/6/2009**	**Q04**	**9:55**	**10:02**	**0**	**2**	**Peroxide Catalyst**	**0**	**7**	**0.29**		**22**	
B13	9/29/2009	R03	11:13	11:21	0	5	Peroxide	12	8	0.63	5		Breakout around well casing
B13	9/29/2009	R03	15:05	15:12	10	5	Peroxide	12	7	0.71	10		
B13	10/1/2009	R03	14:31	14:37	0	4	Peroxide	12	6	0.67	14		Leaked to Surface
B13	10/2/2009	R03	7:55	7:59	0	5	Peroxide	12	4	1.25	19		Leaked to Surface
B13	9/29/2009	R03	10:35	11:10	0	25	Peroxide Catalyst	12	35	0.71		25	
B13	10/1/2009	R03	8:37	8:47	0	10	Peroxide Catalyst	0	10	1.00		35	Leaked to Surface
B13	**10/6/2009**	**R03**	**9:38**	**9:54**	**0**	**10**	**Peroxide Catalyst**	**0**	**16**	**0.63**		**45**	
B13	9/29/2009	R04D	11:22	12:00	10	5	Peroxide	12	38	0.13	5		
B13	9/29/2009	R04D	14:58	15:15	10	5	Peroxide	12	17	0.29	10		Breakout around well casing
B13	10/1/2009	R04D	14:40	14:48	0	3	Peroxide	12	8	0.38	13		Leaked to Surface
B13	10/2/2009	R04D	8:04	8:08	0	3	Peroxide	12	4	0.75	16		Leaked to Surface
B13	10/1/2009	R04D	8:49	8:53	0	5	Peroxide Catalyst	0	4	1.25		5	Leaked to Surface
B13	10/1/2009	R04D	10:22	10:33	0	5	Peroxide Catalyst	0	11	0.45		10	
B13	**10/6/2009**	**R04D**	**8:41**	**8:46**	**0**	**3**	**Peroxide Catalyst**	**0**	**5**	**0.60**		**13**	**Leaked to Surface**
B13	9/29/2009	R04S	10:58	11:14	25	5	Peroxide	12	16	0.31	5		Breakout around well casing
B13	10/1/2009	R04S	14:05	14:08	0	2	Peroxide	12	3	0.67	7		Leaked to Surface
B13	9/29/2009	R04S	10:25	10:55	0	25	Peroxide Catalyst	12	30	0.83		25	
B13	10/1/2009	R04S	8:37	8:48	0	10	Peroxide Catalyst	0	11	0.91		35	
B13	**10/6/2009**	**R04S**	**9:28**	**9:37**	**0**	**5**	**Peroxide Catalyst**	**0**	**9**	**0.56**		**40**	**Leaked to Surface**
B13	9/29/2009	S03D	12:05	12:42	10	15	Peroxide	12	37	0.41	15		
B13	9/29/2009	S03D	15:16	15:42	10	15	Peroxide	12	26	0.58	30		
B13	10/1/2009	S03D	14:10	14:22	5	4	Peroxide	12	12	0.33	34		Leaked to Surface
B13	10/2/2009	S03D	8:11	8:16	0	4	Peroxide	12	5	0.80	38		Leaked to Surface
B13	10/1/2009	S03D	8:49	9:03	0	15	Peroxide Catalyst	0	14	1.07		15	

Table 4-5 (cont.)
Area B-13 - Peroxide Injection Summary Table - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (start)	Pressure (psi)	Inj. Amount (gal)	Type of Oxidant	Peroxide Concentration (%)	Minutes	Flow Rate (gpm)	Total Peroxide Vol. per Well (gal.)	Total Catalyst Vol. per Well (gal.)	Comments
B13	**10/6/2009**	**S03D**	**8:35**	**8:40**	**0**	**5**	**Peroxide Catalyst**	**0**	**5**	**1.00**		**20**	
B13	9/29/2009	S03S	14:45	14:59	30	5	Peroxide	12	14	0.36	5		
B13	10/2/2009	S03S	8:00	8:03	0	2	Peroxide	12	3	0.67	7		Leaked to Surface
B13	10/1/2009	S03S	8:17	8:35	0	10	Peroxide Catalyst	0	18	0.56		10	
B13	10/1/2009	S03S	10:14	10:30	0	15	Peroxide Catalyst	0	16	0.94		25	
B13	**10/6/2009**	**S03S**	**9:03**	**9:27**	**0**	**8**	**Peroxide Catalyst**	**0**	**24**	**0.33**		**33**	**Leaked to Surface**
B13	9/29/2009	T04D	14:45	14:57	5	5	Peroxide	12	12	0.42	5		Breakout around well casing
B13	10/1/2009	T04D	14:25	14:29	0	2	Peroxide	12	4	0.50	7		Leaked to Surface
B13	10/1/2009	T04D	8:54	8:59	0	5	Peroxide Catalyst	0	5	1.00		5	Leaked to Surface
B13	**10/6/2009**	**T04D**	**8:20**	**8:34**	**0**	**10**	**Peroxide Catalyst**	**0**	**14**	**0.71**		**15**	
B13	9/29/2009	T04S	11:43	11:55	12	5	Peroxide	12	12	0.42	5		Breakout around well casing
B13	10/1/2009	T04S	14:05	14:08	0	2	Peroxide	12	3	0.67	7		Leaked to Surface
B13	10/2/2009	T04S	8:09	8:10	0	1	Peroxide	0	1	1.00	8		Leaked to Surface
B13	10/1/2009	T04S	10:09	10:13	0	5	Peroxide Catalyst	12	4	1.25		5	Leaked to Surface
B13	**10/6/2009**	**T04S**	**8:47**	**9:02**	**0**	**7**	**Peroxide Catalyst**	**0**	**15**	**0.47**		**12**	**Leaked to Surface**

Area B-13	# of Days	Number of Wells	Time (start)	Time (stop)	Average Pressure	Total Injection Volume	Injection Reagent	Type of Oxidant	Average Time (min.)	Average Flow Rate (gpm)			
Totals:	**4**	**8**	**NA**	**NA**	**3.85**	**350**	**MFR**	**MFR**	**14**	**0.64**			

Note:

Bold Text Indicates Final Injection for that Individual Well

Table 4-6
Area A - Peroxide Injection Summary Table - 2009
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Area	Date	Well ID	Time (start)	Time (start)	Pressure (psi)	Inj. Amount (gal)	Type of Oxidant	Oxidant Concentration (%)	Minutes	Flow Rate (gal/min)	Total Peroxide Vol. per Well (gal.)	Comments
A14	**10/15/2009**	**H10**	**15:18**	**16:29**	**12**	**100**	**Peroxide**	**10**	**71**	**1.41**	**100**	
A14	10/14/2009	H11	14:19	15:15	18	125	Peroxide	10	56	2.23	125	
A14	**10/15/2009**	**H11**	**10:27**	**11:17**	**12**	**75**	**Peroxide**	**10**	**50**	**1.50**	**200**	
A14	10/14/2009	H14	14:19	15:15	10	125	Peroxide	10	56	2.23	125	
A14	**10/15/2009**	**H14**	**12:06**	**12:28**	**5**	**75**	**Peroxide**	**10**	**22**	**3.41**	**200**	
A14	**10/15/2009**	**H15**	**10:27**	**11:51**	**20**	**200**	**Peroxide**	**10**	**84**	**2.38**	**200**	
A14	**10/15/2009**	**H16**	**13:32**	**14:51**	**12**	**210**	**Peroxide**	**10**	**79**	**2.66**	**210**	
A14	**10/15/2009**	**H17**	**13:15**	**14:30**	**12**	**200**	**Peroxide**	**10**	**75**	**2.67**	**200**	
A14	10/14/2009	I11	15:19	16:09	18	125	Peroxide	10	50	2.50	125	
A14	**10/15/2009**	**I11**	**11:24**	**12:01**	**5**	**75**	**Peroxide**	**10**	**37**	**2.03**	**200**	
A14	10/14/2009	I15	15:19	16:09	5	125	Peroxide	10	50	2.50	125	
A14	10/15/2009	I15	14:38	14:53	5	50	Peroxide	10	15	3.33	175	
A14	**10/15/2009**	**I15**	**14:57**	**15:13**	**5**	**25**	**Peroxide**	**10**	**16**	**1.56**	**200**	
A14	10/15/2009	I16	11:56	12:20	5	50	Peroxide	10	24	2.08	50	
A14	10/15/2009	I16	12:28	12:36	5	25	Peroxide	10	8	3.13	75	Leaked to Surface
A14	**10/15/2009**	**I16**	**13:15**	**13:30**	**5**	**40**	**Peroxide**	**10**	**15**	**2.67**	**115**	
A15	**10/15/2009**	**I21**	**15:01**	**16:29**	**15**	**175**	**Peroxide**	**10**	**88**	**1.99**	**175**	

Area A	# of Days	Number of Wells	Time (start)	Time (stop)	Average Pressure	Total Injection Volume	Type of Oxidant	Oxidant Concentration (%)	Average Injection Time	Average Flow Rate (gpm)	Total Peroxide Vol. per Well (gal.)	Comments
Totals:	**2**	**10**	**NA**	**NA**	**9.94**	**1800**	**MFR**	**10**	46.82	2.37	N/A	

Note:

Bold Text Indicates Final Injection for that Individual Well

Table 4-7
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
GZ-11A	9/10/2009	11:35	YSI 650 MDS	Solinst 101	11.5	5.64	66.9	16.23	2.81	634	Baseline
GZ-11A	9/10/2009	14:50	YSI 650 MDS	Solinst 101	11.2	NM	NM	NM	NM	NM	K22, J20, H19, H22
GZ-11A	9/10/2009	15:20	YSI 650 MDS	Solinst 101	NM	5.51	108.1	16.74	16.18	1412	K22, J20, H19, H22
GZ-11A	9/10/2009	15:28	YSI 650 MDS	Solinst 101	11.45	NM	NM	NM	NM	NM	K22, J20, H19, H22
GZ-11A	9/11/2009	9:30	YSI 650 MDS	Solinst 101	11.4	NM	NM	NM	NM	NM	F19, J23, L20, I21
GZ-11A	9/11/2009	10:10	YSI 650 MDS	Solinst 101	11.31	NM	NM	NM	NM	NM	F19, J23, L20, I21
GZ-11A	9/11/2009	10:35	YSI 650 MDS	Solinst 101	NM	6.21	25	14.85	0.39	2915	F16, I19, I22
GZ-11A	9/11/2009	11:00	YSI 650 MDS	Solinst 101	10.95	NM	NM	NM	NM	NM	F16, I19, I22, K20
GZ-11A	9/11/2009	11:35	YSI 650 MDS	Solinst 101	NM	5.8	34.9	15.43	2.01	4173	NA
GZ-11A	9/11/2009	12:50	YSI 650 MDS	Solinst 101	11.1	NM	NM	NM	NM	NM	J15, I17
GZ-11A	9/11/2009	13:10	YSI 650 MDS	Solinst 101	NM	4.94	92	15.56	1.15	5721	J15, I17, F17, F15
GZ-11A	9/11/2009	13:18	YSI 650 MDS	Solinst 101	10.2	NM	NM	NM	NM	NM	J15, I17, F17, F15
GZ-11A	9/11/2009	14:30	YSI 650 MDS	Solinst 101	10.2	NM	NM	NM	NM	NM	F14, I16, H15, F13
GZ-11A	9/11/2009	14:45	YSI 650 MDS	Solinst 101	NM	2.67	255.6	15.04	0.11	23671	F14, I16, H15, F13
GZ-11A	9/14/2009	11:50	YSI 650 MDS	Solinst 101	11.05	4.31	214.8	16.14	4.24	7620	H17, I15, D11
GZ-11A	9/14/2009	12:30	YSI 650 MDS	Solinst 101	10.15	5.05	376.9	16.27	5.35	17943	H16, H14, H11, D11
GZ-11A	9/17/2009	14:03	YSI 650 MDS	Solinst 101	11.1	NM	NM	NM	NM	NM	I17, L20, D10, H10
GZ-11A	9/17/2009	15:15	YSI 650 MDS	Solinst 101	10.4	NM	NM	NM	NM	NM	H17, K22, H11
GZ-11A	9/17/2009	16:05	YSI 650 MDS	Solinst 101	11.15	NM	NM	NM	NM	NM	K22, H11
GZ-11A	9/18/2009	9:10	YSI 650 MDS	Solinst 101	10.95	NM	NM	NM	NM	NM	I11, F14, F17
GZ-11A	9/18/2009	9:50	YSI 650 MDS	Solinst 101	10.5	NM	NM	NM	NM	NM	F17, K20, I11, F15
GZ-11A	9/18/2009	10:40	YSI 650 MDS	Solinst 101	10.65	NM	NM	NM	NM	NM	I13, I19, J20, H15
GZ-11A	9/18/2009	11:15	YSI 650 MDS	Solinst 101	10.7	NM	NM	NM	NM	NM	I13, H13, F19
GZ-11A	9/18/2009	13:32	YSI 650 MDS	Solinst 101	11.05	NM	NM	NM	NM	NM	H19, H12, J15
GZ-11A	9/18/2009	14:05	YSI 650 MDS	Solinst 101	10.55	NM	NM	NM	NM	NM	H19, J15, I16, L22
GZ-11A	9/18/2009	14:50	YSI 650 MDS	Solinst 101	10.75	NM	NM	NM	NM	NM	I19, L22, I16
GZ-11A	9/18/2009	15:30	YSI 650 MDS	Solinst 101	10.1	NM	NM	NM	NM	NM	
GZ-11A	9/21/2009	10:04	YSI 650 MDS	Solinst 101	10.9	NM	NM	NM	NM	NM	I13, H16, H21, J22
GZ-11A	9/21/2009	11:05	YSI 650 MDS	Solinst 101	11.45	NM	NM	NM	NM	NM	H12
GZ-11A	9/21/2009	11:26	YSI 650 MDS	Solinst 101	11.45	NM	NM	NM	NM	NM	H12, F21, I21, J23
GZ-11A	9/21/2009	12:00	YSI 650 MDS	Solinst 101	11.3	NM	NM	NM	NM	NM	F13, J20, I21, J23
GZ-11A	9/21/2009	13:00	YSI 650 MDS	Solinst 101	10.9	NM	NM	NM	NM	NM	F14, I16, H22, K22
GZ-11A	9/21/2009	14:17	YSI 650 MDS	Solinst 101	10.72	NM	NM	NM	NM	NM	H14, I16, I22, L20

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
GZ-11A	9/22/2009	9:22	YSI 650 MDS	Solinst 101	11.1	NM	NM	NM	NM	NM	I21, K20, H13, J15
GZ-11A	9/22/2009	10:37	YSI 650 MDS	Solinst 101	10.9	NM	NM	NM	NM	NM	I22, I15, H13
GZ-11A	9/22/2009	11:45	YSI 650 MDS	Solinst 101	11.4	NM	NM	NM	NM	NM	L22, H12
GZ-11A	9/22/2009	12:30	YSI 650 MDS	Solinst 101	11.2	NM	NM	NM	NM	NM	H22, H12, H15
GZ-11A	9/22/2009	14:11	YSI 650 MDS	Solinst 101	11.25	NM	NM	NM	NM	NM	H21, J23, I11, F15
GZ-11A	9/22/2009	15:12	YSI 650 MDS	Solinst 101	11.01	NM	NM	NM	NM	NM	I17, I10
GZ-11A	9/22/2009	16:10	YSI 650 MDS	Solinst 101	10.56	NM	NM	NM	NM	NM	F21, I17
GZ-11A	9/23/2009	9:45	YSI 650 MDS	Solinst 101	11	NM	NM	NM	NM	NM	F11, D09, H17, I19
GZ-11A	9/23/2009	11:33	YSI 650 MDS	Solinst 101	10.99	NM	NM	NM	NM	NM	F10, D08D, I14, H19
GZ-11A	9/23/2009	13:47	YSI 650 MDS	Solinst 101	11.6	NM	NM	NM	NM	NM	F09, D07D, H11, F19
GZ-11A	9/23/2009	14:42	YSI 650 MDS	Solinst 101	11.5	NM	NM	NM	NM	NM	F08, D10, I17
GZ-11A	9/23/2009	15:22	YSI 650 MDS	Solinst 101	11.29	NM	NM	NM	NM	NM	F08, D10, H10, I13
GZ-11A	9/29/2009	10:41	YSI 650 MDS	Solinst 101	11.68	NM	NM	NM	NM	NM	H10, F07D, E00
GZ-11A	9/29/2009	15:29	YSI 650 MDS	Solinst 101	11.61	NM	NM	NM	NM	NM	F99, A04, F09, I11
GZ-11A	9/30/2009	11:42	YSI 650 MDS	Solinst 101	11	NM	NM	NM	NM	NM	I17, L22, H12, I14
GZ-11A	9/30/2009	16:00	YSI 650 MDS	Solinst 101	10.7	NM	NM	NM	NM	NM	F17, J15, K22
GZ-11A	10/1/2009	10:04	YSI 650 MDS	Solinst 101	11.3	NM	NM	NM	NM	NM	J20, F19, F15, H13
GZ-11A	10/1/2009	14:50	YSI 650 MDS	Solinst 101	11.66	NM	NM	NM	NM	NM	NA
GZ-11A	10/2/2009	10:50	YSI 650 MDS	Solinst 101	11.25	NM	NM	NM	NM	NM	H21, K20, F09, I15
GZ-11A	10/2/2009	15:05	YSI 650 MDS	Solinst 101	11	NM	NM	NM	NM	NM	I16, F16, I22
GZ-11A	10/5/2009	11:33	YSI 650 MDS	Solinst 101	11.1	NM	NM	NM	NM	NM	I13, H14, I19
GZ-11A	10/5/2009	15:55	YSI 650 MDS	Solinst 101	11.35	NM	NM	NM	NM	NM	I22, H17, I17
GZ-11A	10/6/2009	10:00	YSI 650 MDS	Solinst 101	10.6	NM	NM	NM	NM	NM	H13, H16, I15
GZ-11A	10/7/2009	15:31	YSI 650 MDS	Solinst 101	10.4	NM	NM	NM	NM	NM	F21, L20, I19, J23
GZ-11A	10/8/2009	12:41	YSI 650 MDS	Solinst 101	11.3	NM	NM	NM	NM	NM	H22, K20, J22, F19
GZ-11A	10/8/2009	15:45	YSI 650 MDS	Solinst 101	11.3	NM	NM	NM	NM	NM	I21, F15
GZ-11A	10/9/2009	10:56	YSI 650 MDS	Solinst 101	11.4	NM	NM	NM	NM	NM	D10, H11
GZ-11A	10/9/2009	13:28	YSI 650 MDS	Solinst 101	11.38	NM	NM	NM	NM	NM	F11, D09, H17, I19
GZ-11A	10/12/2009	11:19	YSI 650 MDS	Solinst 101	11.4	NM	NM	NM	NM	NM	E98, H10, D07D
GZ-11A	10/12/2009	14:36	YSI 650 MDS	Solinst 101	11.38	NM	NM	NM	NM	NM	D03, F09, D06D
GZ-11A	10/13/2009	11:32	YSI 650 MDS	Solinst 101	11.25	NM	NM	NM	NM	NM	F08, D03
GZ-11A	10/13/2009	14:12	YSI 650 MDS	Solinst 101	11.25	NM	NM	NM	NM	NM	A03, H21, J22
GZ-11A	10/14/2009	11:03	YSI 650 MDS	Solinst 101	11.16	NM	NM	NM	NM	NM	H22, F19, J20

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
GZ-11A	10/14/2009	14:05	YSI 650 MDS	Solinst 101	11.3	NM	NM	NM	NM	NM	NA
GZ-11A	10/14/2009	14:32	YSI 650 MDS	Solinst 101	9.8	NM	NM	NM	NM	NM	NA
GZ-11A	10/14/2009	15:05	YSI 650 MDS	Solinst 101	10.7	NM	NM	NM	NM	NM	NA
GZ-11A	10/14/2009	15:35	YSI 650 MDS	Solinst 101	11.1	NM	NM	NM	NM	NM	
GZ-11A	10/15/2009	10:26	YSI 650 MDS	Solinst 101	11.3	NM	NM	NM	NM	NM	
GZ-11A	10/15/2009	10:47	YSI 650 MDS	Solinst 101	9.35	NM	NM	NM	NM	NM	
GZ-11A	10/15/2009	11:25	YSI 650 MDS	Solinst 101	10.7	NM	NM	NM	NM	NM	
GZ-11A	10/15/2009	12:24	YSI 650 MDS	Solinst 101	11.71	NM	NM	NM	NM	NM	
GZ-11A	10/15/2009	13:30	YSI 650 MDS	Solinst 101	8.9	NM	NM	NM	NM	NM	
GZ-11A	10/15/2009	13:50	YSI 650 MDS	Solinst 101	7.5	NM	NM	NM	NM	NM	
GZ-11A	10/15/2009	14:59	YSI 650 MDS	Solinst 101	12	NM	NM	NM	NM	NM	
ME-A01D	9/10/2009	12:12	YSI 650 MDS	Solinst 101	8.5	6.69	-11.6	16.75	5.34	790	Baseline
ME-A01D	9/15/2009	10:07	YSI 650 MDS	Solinst 101	7.65	6.8	-132.3	10.96	0.51	1467	H12, H10, D08D, D02
ME-A01D	9/15/2009	11:35	YSI 650 MDS	Solinst 101	7.8	6.81	-144.3	10.9	0.37	1499	H13, F09
ME-A01D	9/15/2009	13:10	YSI 650 MDS	Solinst 101	7.8	6.83	-163.5	11	0.45	1545	D09, F02, F06
ME-A01D	9/15/2009	14:30	YSI 650 MDS	Solinst 101	7.9	6.83	-151.9	11.03	0.63	1536	F07D
ME-A01D	9/15/2009	15:33	YSI 650 MDS	Solinst 101	7.77	6.8	-148.1	10.95	0.5	1551	H14, F08, A03, F03
ME-A01D	9/16/2009	10:05	YSI 650 MDS	Solinst 101	6.98	7.88	-97.7	11.05	0.53	1572	E98, E00, B03, F07D
ME-A01D	9/16/2009	11:08	YSI 650 MDS	Solinst 101	8.1	NM	NM	NM	NM	NM	F01, A04
ME-A01D	9/16/2009	11:50	YSI 650 MDS	Solinst 101	7.9	6.95	-92.6	10.99	0.37	1589	D99, F01, D07D, A04
ME-A01D	9/16/2009	13:07	YSI 650 MDS	Solinst 101	7.86	NM	NM	NM	NM	NM	C00, D01, A03, D08D
ME-A01D	9/16/2009	14:30	YSI 650 MDS	Solinst 101	7.36	6.82	-100.5	10.96	0.43	1644	F99, D02, D06D, F09
ME-A01D	9/16/2009	15:48	YSI 650 MDS	Solinst 101	7.36	NM	NM	NM	NM	NM	F09, F06, D03, F01
ME-A01D	9/16/2009	16:23	YSI 650 MDS	Solinst 101	7.15	6.94	-84	10.93	0.43	1633	F99, B03, D11, I10
ME-A01D	9/24/2009	9:20	YSI 650 MDS	Solinst 101	8.07	6.87	-120.6	11.33	2.15	1815	D02, A04, D99, E00
ME-A01D	9/24/2009	10:17	YSI 650 MDS	Solinst 101	7.6	7.24	-150.7	11.16	2.87	1777	D03, A03, C00, F01
ME-A01D	9/24/2009	12:53	YSI 650 MDS	Solinst 101	7.7	6.45	-86	11.28	2.25	1728	F03, D06D, F99, D01
ME-A01D	9/24/2009	14:10	YSI 650 MDS	Solinst 101	7.87	7.93	-186.7	11.22	1.97	1771	B13, F09, E98, F02
ME-A01D	9/25/2009	9:04	YSI 650 MDS	Solinst 101	8.26	6.99	-109.8	11.36	0.63	1856	D01, E98, F03
ME-A01D	9/25/2009	10:31	YSI 650 MDS	Solinst 101	7.74	7.96	-186.5	11.24	1.01	1954	D02, F06, D99, A04
ME-A01D	9/25/2009	11:03	YSI 650 MDS	Solinst 101	7.38	NM	NM	NM	NM	NM	D03, F06, D99, A04
ME-A01D	9/25/2009	11:46	YSI 650 MDS	Solinst 101	7.11	6.56	-26.1	11.2	1.44	2021	D03, D06D, F99, A04
ME-A01D	9/25/2009	12:31	YSI 650 MDS	Solinst 101	7.55	NM	NM	NM	NM	NM	A03

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
ME-A01D	9/25/2009	12:53	YSI 650 MDS	Solinst 101	8.89	8.08	-148.3	11.32	2.46	2011	C00
ME-A01D	9/28/2009	11:28	YSI 650 MDS	Solinst 101	8.13	7.32	-123.2	11.77	1.07	2021	D09, E00, B03
ME-A01D	9/28/2009	13:23	YSI 650 MDS	Solinst 101	7.98	7.37	-123.3	11.46	2.15	2087	D10, F11, F01, F06
ME-A01D	9/28/2009	15:16	YSI 650 MDS	Solinst 101	8	7.31	-115.2	11.56	3.68	2066	
ME-A01D	9/29/2009	10:12	YSI 650 MDS	Solinst 101	8.21	7.34	-105.8	11.55	3.61	2657	
ME-A01D	9/29/2009	15:13	YSI 650 MDS	Solinst 101	8.09	7.79	-138.1	13.41	2.78	1330	
ME-A01D	9/30/2009	11:31	YSI 650 MDS	Solinst 101	8.3	7.88	-121.4	13.84	4.14	1617	
ME-A01D	9/30/2009	15:33	YSI 650 MDS	Solinst 101	8.22	7.62	-137.8	11.68	2.86	2987	
ME-A01D	10/1/2009	9:42	YSI 650 MDS	Solinst 101	8.31	7.9	-143.1	11.78	4.43	3098	
ME-A01D	10/1/2009	14:28	YSI 650 MDS	Solinst 101	8.2	8.28	-163.6	11.75	4.3	3102	
ME-A01D	10/2/2009	10:35	YSI 650 MDS	Solinst 101	8.3	7.82	-166.4	12.05	3.01	3420	
ME-A01D	10/2/2009	14:45	YSI 650 MDS	Solinst 101	8.31	8.41	-181.6	11.86	4.19	3489	
ME-A01D	10/5/2009	11:52	YSI 650 MDS	Solinst 101	8.27	6.13	-30.9	12.05	2.68	3629	
ME-A01D	10/5/2009	16:08	YSI 650 MDS	Solinst 101	8.18	5.76	-27.9	12.06	4.4	3644	
ME-A01D	10/6/2009	9:43	YSI 650 MDS	Solinst 101	8.27	7.24	-150.6	12.26	1.98	3569	
ME-A01D	10/7/2009	15:47	YSI 650 MDS	Solinst 101	8.1	5.71	-77.8	12.3	1.32	4036	
ME-A01D	10/8/2009	12:54	YSI 650 MDS	Solinst 101	8.22	5.83	-55.2	12.33	1.93	4295	
ME-A01D	10/8/2009	16:04	YSI 650 MDS	Solinst 101	9.22	5.94	-66.1	12.3	2.48	4373	
ME-A01D	10/9/2009	10:41	YSI 650 MDS	Solinst 101	8.05	7.6	-129.1	12.33	8.66	3789	
ME-A01D	10/9/2009	13:19	YSI 650 MDS	Solinst 101	7.95	7.64	-112.4	12.33	11.03	3778	
ME-A01D	10/12/2009	11:28	YSI 650 MDS	Solinst 101	7.8	4.87	172.7	12.68	4.98	4901	
ME-A01D	10/12/2009	14:26	YSI 650 MDS	Solinst 101	7.27	7.79	-135.7	12.53	4.82	5145	
ME-A01D	10/13/2009	11:23	YSI 650 MDS	Solinst 101	7.45	8.22	-142.8	12.72	5.8	5924	
ME-A01D	10/13/2009	14:03	YSI 650 MDS	Solinst 101	7.8	7.52	-108.7	12.61	5.33	6058	
ME-A01D	10/14/2009	10:47	YSI 650 MDS	Solinst 101	8.05	7.85	-160.8	12.68	2.55	5248	
ME-A01D	10/14/2009	13:46	YSI 650 MDS	Solinst 101	8.05	7.67	-170.5	12.65	2.94	5372	
ME-A01D	10/15/2009	10:11	YSI 650 MDS	Solinst 101	7.45	8.19	194	12.62	2.44	4944	
ME-A01D	10/15/2009	13:09	YSI 650 MDS	Solinst 101	7.85	7.56	-165.5	12.64	3.51	5023	
ME-A01S	9/10/2009	12:15	YSI 650 MDS	Solinst 101	8.32	6.42	-24.8	17.98	4.36	1247	Baseline
ME-A01S	9/15/2009	10:05	YSI 650 MDS	Solinst 101	8.29	6.73	-116.1	14.16	1.17	1866	H12, H10, D08D, D02
ME-A01S	9/15/2009	11:30	YSI 650 MDS	Solinst 101	8.2	6.66	-123.4	14.13	1.25	1844	H13, F09
ME-A01S	9/15/2009	13:05	YSI 650 MDS	Solinst 101	8.25	6.68	-142.2	14.21	0.99	1887	F02, F06, F13
ME-A01S	9/15/2009	14:25	YSI 650 MDS	Solinst 101	8.2	6.69	-129.8	13.94	1.31	1877	A04, F07D

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
ME-A01S	9/15/2009	15:30	YSI 650 MDS	Solinst 101	8.15	6.6	-119.2	13.99	1.04	1715	A03, H14, F03, F08
ME-A01S	9/16/2009	10:00	YSI 650 MDS	Solinst 101	8.25	6.95	-77.7	13.93	0.88	1637	E98, E00, B03, F07D
ME-A01S	9/16/2009	11:07	YSI 650 MDS	Solinst 101	8.35	NM	NM	NM	NM	NM	F01, A04
ME-A01S	9/16/2009	11:45	YSI 650 MDS	Solinst 101	8.2	6.75	-56.5	13.77	2.3	1627	D99, F01, D07D, A04
ME-A01S	9/16/2009	13:05	YSI 650 MDS	Solinst 101	8.3	NM	NM	NM	NM	NM	C00, D01, A03, D08D
ME-A01S	9/16/2009	14:25	YSI 650 MDS	Solinst 101	8.04	6.56	-56.8	13.65	1.85	1611	F99, D02, D06D, D09
ME-A01S	9/16/2009	15:47	YSI 650 MDS	Solinst 101	8.02	NM	NM	NM	NM	NM	F09, F06, D03, F01
ME-A01S	9/16/2009	16:20	YSI 650 MDS	Solinst 101	7.9	6.75	-49.9	13.61	2.42	1612	F99, B03, D11, I10
ME-A01S	9/24/2009	9:22	YSI 650 MDS	Solinst 101	8.44	6.94	-125.3	13.91	3.1	1684	D02, A04, D99, E00
ME-A01S	9/24/2009	10:15	YSI 650 MDS	Solinst 101	8.18	7.44	-160.2	14.44	4.59	1689	D03, C00, F01
ME-A01S	9/24/2009	12:51	YSI 650 MDS	Solinst 101	8.12	6.16	-61.1	14.43	3.06	1683	F03, D06D, F99, D01
ME-A01S	9/24/2009	14:08	YSI 650 MDS	Solinst 101	8.2	8.37	-207.7	14.04	2.22	1727	B03, F09, E98, F02
ME-A01S	9/25/2009	9:00	YSI 650 MDS	Solinst 101	8.47	7.6	-93.9	14.56	3.51	1813	F09, D01, F03
ME-A01S	9/25/2009	10:29	YSI 650 MDS	Solinst 101	8.23	8.61	-218.4	13.85	1.92	1837	D02, F06, D99, A03
ME-A01S	9/25/2009	11:01	YSI 650 MDS	Solinst 101	8.1	NM	NM	NM	NM	NM	D03, F06, D99, A04
ME-A01S	9/25/2009	11:44	YSI 650 MDS	Solinst 101	7.99	6.4	5.1	13.58	2.23	1815	D03, D06D, F99, A04
ME-A01S	9/25/2009	12:34	YSI 650 MDS	Solinst 101	8.17	NM	NM	NM	NM	NM	D03, D06D, A03
ME-A01S	9/25/2009	12:55	YSI 650 MDS	Solinst 101	8.26	8.44	-159.1	13.79	3.09	1876	C00
ME-A01S	9/28/2009	11:26	YSI 650 MDS	Solinst 101	8.32	7.45	-129.2	14.2	2.02	1877	D09, D11, E98, B03
ME-A01S	9/28/2009	13:21	YSI 650 MDS	Solinst 101	8.28	7.6	-131	14.14	2.86	1912	D10, F11, F01, F06
ME-A01S	9/28/2009	15:14	YSI 650 MDS	Solinst 101	8.41	7.51	-123.5	14	3.82	1932	
ME-A01S	9/29/2009	10:10	YSI 650 MDS	Solinst 101	8.4	7.6	-109	14.19	4.63	2460	
ME-A01S	9/29/2009	15:10	YSI 650 MDS	Solinst 101	8.47	7.94	-137.8	13.91	3.51	2040	
ME-A01S	9/30/2009	11:30	YSI 650 MDS	Solinst 101	8.3	8.25	-124.7	13.99	5.02	2719	
ME-A01S	9/30/2009	15:32	YSI 650 MDS	Solinst 101	8.46	8.03	-149.4	13.81	3.14	2776	
ME-A01S	10/1/2009	9:40	YSI 650 MDS	Solinst 101	8.48	8.56	-159.1	13.87	4.44	2880	
ME-A01S	10/1/2009	14:26	YSI 650 MDS	Solinst 101	8.4	8.62	-186.2	13.87	5.06	2921	
ME-A01S	10/2/2009	10:33	YSI 650 MDS	Solinst 101	8.29	8.23	-182.8	13.96	4.01	3286	
ME-A01S	10/2/2009	14:44	YSI 650 MDS	Solinst 101	8.15	8.97	-207.1	13.94	4.93	3346	
ME-A01S	10/5/2009	11:50	YSI 650 MDS	Solinst 101	8.2	5.93	-5.1	14.12	4.49	3729	
ME-A01S	10/5/2009	16:07	YSI 650 MDS	Solinst 101	8.1	5.63	-8.5	14.07	3.88	3809	
ME-A01S	10/6/2009	9:42	YSI 650 MDS	Solinst 101	8.35	7.34	152.9	14.17	3.03	3665	
ME-A01S	10/7/2009	15:46	YSI 650 MDS	Solinst 101	8.25	5.43	-42.3	14.15	1.61	4070	

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
ME-A01S	10/8/2009	12:52	YSI 650 MDS	Solinst 101	8.3	5.35	0.4	14.06	2.81	4938	
ME-A01S	10/8/2009	16:02	YSI 650 MDS	Solinst 101	8.3	5.5	-6.1	13.95	3.52	4938	
ME-A01S	10/9/2009	10:40	YSI 650 MDS	Solinst 101	8.1	7.85	-1004	14	13.21	4018	
ME-A01S	10/9/2009	13:18	YSI 650 MDS	Solinst 101	8.15	7.65	-109.5	12.35	11.77	3769	
ME-A01S	10/12/2009	11:27	YSI 650 MDS	Solinst 101	8	4.17	320.5	14.02	6.09	5470	
ME-A01S	10/12/2009	14:25	YSI 650 MDS	Solinst 101	7.8	8.09	-138.2	13.71	7.18	5170	
ME-A01S	10/13/2009	11:22	YSI 650 MDS	Solinst 101	7.9	8.48	-147.5	13.92	6.24	5813	
ME-A01S	10/13/2009	14:02	YSI 650 MDS	Solinst 101	7.9	7.75	-109.6	13.85	7.7	5889	
ME-A01S	10/14/2009	10:46	YSI 650 MDS	Solinst 101	8.19	8.14	-166.1	13.63	3.12	5175	
ME-A01S	10/14/2009	13:45	YSI 650 MDS	Solinst 101	8.25	7.99	-178.3	13.83	3.69	5267	
ME-A01S	10/15/2009	10:09	YSI 650 MDS	Solinst 101	8	8.94	-198.3	13.71	4.16	5043	
ME-A01S	10/15/2009	13:08	YSI 650 MDS	Solinst 101	8.2	7.62	172.6	13.8	3.38	4967	
MEPM-A10	9/10/2009	12:24	YSI 650 MDS	Solinst 101	8.2	5.9	2.2	15.51	5.76	274	Baseline
MEPM-A10	9/15/2009	10:20	YSI 650 MDS	Solinst 101	7.9	6.94	-166.7	11.47	0.26	522	H12, H10, D08
MEPM-A10	9/15/2009	11:45	YSI 650 MDS	Solinst 101	8.05	7.05	-180	11.31	0.34	489	H13, F09
MEPM-A10	9/15/2009	13:15	YSI 650 MDS	Solinst 101	8.05	7.3	-264.3	11.21	0.33	526	F02, F06, F13
MEPM-A10	9/15/2009	14:40	YSI 650 MDS	Solinst 101	8.05	7.13	-210.3	11.24	0.31	530	F07D
MEPM-A10	9/15/2009	15:50	YSI 650 MDS	Solinst 101	7.95	8.56	-395	11.02	0.23	556	
MEPM-A10	9/16/2009	10:10	YSI 650 MDS	Solinst 101	7.8	7.92	-308.8	11.22	0.2	576	E98, E00, B03
MEPM-A10	9/16/2009	11:12	YSI 650 MDS	Solinst 101	8	NM	NM	NM	NM	NM	F01, A04
MEPM-A10	9/16/2009	12:10	YSI 650 MDS	Solinst 101	7.7	8.07	-338.4	11.1	0.28	595	D99, F01, D07D
MEPM-A10	9/16/2009	13:10	YSI 650 MDS	Solinst 101	7.82	NM	NM	NM	NM	NM	C00, D01, A03, D08D
MEPM-A10	9/16/2009	14:35	YSI 650 MDS	Solinst 101	7.38	8.17	-328.4	11.05	0.16	615	F99, D02, D06D, F09
MEPM-A10	9/16/2009	15:52	YSI 650 MDS	Solinst 101	7.6	NM	NM	NM	NM	NM	F09, D09, F06, D03, F01
MEPM-A10	9/16/2009	16:30	YSI 650 MDS	Solinst 101	7.45	8.11	-288.7	11.07	0.14	1351	
MEPM-A10	9/24/2009	9:11	YSI 650 MDS	Solinst 101	7.85	9.14	-260.8	12.66	2.72	1653	D02, A04, D99, E00
MEPM-A10	9/24/2009	10:11	YSI 650 MDS	Solinst 101	6.65	8.09	-183.6	12.5	4.75	2387	F01, D03, C00
MEPM-A10	9/24/2009	13:00	YSI 650 MDS	Solinst 101	7.57	7.76	-227.5	12.3	1.6	5028	F03, D06D, F99, D01
MEPM-A10	9/24/2009	14:04	YSI 650 MDS	Solinst 101	7.7	10.15	-342.6	12.41	2.4	6018	B03, F09, E98, F02
MEPM-A10	9/25/2009	9:10	YSI 650 MDS	Solinst 101	7.9	10.01	-318.5	12.66	0.59	4602	D01, F08, E98, F03
MEPM-A10	9/25/2009	10:03	YSI 650 MDS	Solinst 101	7.8	NM	NM	NM	NM	NM	D02, F07D, D99, F03
MEPM-A10	9/25/2009	10:24	YSI 650 MDS	Solinst 101	7.69	10.64	-343.6	12.42	0.66	13693	D02, F06, D99, A03
MEPM-A10	9/25/2009	11:53	YSI 650 MDS	Solinst 101	7.4	10.3	-338	12.47	0.87	17471	D03, D06D, F99

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A10	9/25/2009	12:25	YSI 650 MDS	Solinst 101	7.4	NM	NM	NM	NM	NM	A03, F99
MEPM-A10	9/25/2009	12:49	YSI 650 MDS	Solinst 101	7.76	12.01	-313.9	12.57	1.74	14663	C00
MEPM-A10	9/28/2009	11:18	YSI 650 MDS	Solinst 101	8.15	10.69	142.2	14.2	1.45	4727	D09, D11, E00, B03
MEPM-A10	9/28/2009	13:14	YSI 650 MDS	Solinst 101	8.07	12.12	-4	13.7	2.23	8542	D10, F11, F01, F06
MEPM-A10	9/28/2009	15:07	YSI 650 MDS	Solinst 101	8.05	11.09	15.5	13.44	3.83	7160	
MEPM-A10	9/29/2009	10:05	YSI 650 MDS	Solinst 101	8.15	12.05	-304.5	14.89	6.19	10957	
MEPM-A10	9/29/2009	15:03	YSI 650 MDS	Solinst 101	7.75	10.41	-349	13.27	2.5	10431	
MEPM-A10	9/30/2009	11:26	YSI 650 MDS	Solinst 101	8.19	12.32	-232.6	14.18	6.39	12978	
MEPM-A10	9/30/2009	15:26	YSI 650 MDS	Solinst 101	8.2	11.67	-149.5	14.27	5.07	15293	
MEPM-A10	10/1/2009	9:36	YSI 650 MDS	Solinst 101	8.2	12.48	4	14.96	5.53	15044	
MEPM-A10	10/1/2009	14:22	YSI 650 MDS	Solinst 101	8.2	11.56	-259.9	14.95	7.1	13659	
MEPM-A10	10/2/2009	10:28	YSI 650 MDS	Solinst 101	8.18	10.57	-360.8	15.35	4.62	7793	
MEPM-A10	10/2/2009	14:40	YSI 650 MDS	Solinst 101	8.2	11.7	-391.2	15.16	3.71	7223	
MEPM-A10	10/5/2009	11:58	YSI 650 MDS	Solinst 101	8.15	8.53	-206.5	15.39	2.19	1720	
MEPM-A10	10/5/2009	16:13	YSI 650 MDS	Solinst 101	8.12	7.89	-190.3	15.39	2.18	1642	
MEPM-A10	10/6/2009	9:38	YSI 650 MDS	Solinst 101	8.15	8.33	-234.9	15.43	3.45	1439	
MEPM-A10	10/6/2009	15:06	YSI 650 MDS	Solinst 101	8.13	7.47	-218.7	15.35	16.61	1339	
MEPM-A10	10/7/2009	15:52	YSI 650 MDS	Solinst 101	8.1	8.08	-240.6	15.26	0.75	1281	
MEPM-A10	10/8/2009	12:58	YSI 650 MDS	Solinst 101	8.1	7.53	-177.4	15.24	2.51	1171	
MEPM-A10	10/8/2009	16:08	YSI 650 MDS	Solinst 101	8.1	7.44	-189	15.25	4.27	1133	
MEPM-A10	10/9/2009	10:36	YSI 650 MDS	Solinst 101	7.95	8.41	107.8	14.75	12.21	1973	
MEPM-A10	10/9/2009	13:15	YSI 650 MDS	Solinst 101	7.9	9.1	148.8	14.65	7.84	3911	
MEPM-A10	10/12/2009	11:31	YSI 650 MDS	Solinst 101	7.9	6.1	-82.4	14.78	5.47	7326	
MEPM-A10	10/12/2009	14:21	YSI 650 MDS	Solinst 101	7.75	7.14	-86.6	14.52	6.77	11302	
MEPM-A10	10/13/2009	11:19	YSI 650 MDS	Solinst 101	7.61	8.01	89.6	14.45	5.09	16081	
MEPM-A10	10/13/2009	13:59	YSI 650 MDS	Solinst 101	7.76	7.69	103.3	14.49	8.82	8926	
MEPM-A10	10/14/2009	10:41	YSI 650 MDS	Solinst 101	7.98	9.43	-185.2	14.47	4.29	5646	
MEPM-A10	10/14/2009	13:39	YSI 650 MDS	Solinst 101	7.98	11.73	-89.7	14.75	3.95	6367	
MEPM-A10	10/15/2009	10:04	YSI 650 MDS	Solinst 101	7.8	13.71	-32.4	14.54	4.1	11036	
MEPM-A10	10/15/2009	12:55	YSI 650 MDS	Solinst 101	7.8	11.32	-54.4	14.63	5.54	7182	
MEPM-A11	9/10/2009	12:18	YSI 650 MDS	Solinst 101	8.38	6.02	-25	15.63	6.12	714	Baseline
MEPM-A11	9/15/2009	10:15	YSI 650 MDS	Solinst 101	7.82	6.67	-107.5	10.99	0.62	1019	H12, H10, D08D
MEPM-A11	9/15/2009	11:40	YSI 650 MDS	Solinst 101	7.8	6.59	-88.7	10.84	1.4	1426	H13, F09

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
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Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A11	9/15/2009	13:12	YSI 650 MDS	Solinst 101	7.5	6.54	-110.7	10.69	0.58	2088	F02, F06, F13
MEPM-A11	9/15/2009	14:35	YSI 650 MDS	Solinst 101	7.5	6.58	-100	10.77	0.57	2104	F07D
MEPM-A11	9/15/2009	15:43	YSI 650 MDS	Solinst 101	7.5	6.33	-68	10.62	0.41	2887	E98, E00, B03, F07D
MEPM-A11	9/16/2009	11:10	YSI 650 MDS	Solinst 101	7.87	NM	NM	NM	NM	NM	F01, A04
MEPM-A11	9/16/2009	12:05	YSI 650 MDS	Solinst 101	7.39	6.58	-50.4	10.89	0.34	2137	D99, F01, D07D
MEPM-A11	9/16/2009	13:08	YSI 650 MDS	Solinst 101	7.42	NM	NM	NM	NM	NM	C00, D01, A03, D08D
MEPM-A11	9/16/2009	14:32	YSI 650 MDS	Solinst 101	7.31	6.37	-36.7	10.8	0.61	3557	F99, D02, D06D, F09
MEPM-A11	9/16/2009	15:50	YSI 650 MDS	Solinst 101	7.5	NM	NM	NM	NM	NM	F09, F06, D03, F01
MEPM-A11	9/16/2009	16:25	YSI 650 MDS	Solinst 101	7.34	6.53	-39	10.84	0.61	3609	
MEPM-A11	9/17/2009	9:50	YSI 650 MDS	Solinst 101	7.8	6.66	16.2	11.31	0.58	1227	E00, F11, D99
MEPM-A11	9/17/2009	10:40	YSI 650 MDS	Solinst 101	7.87	NM	NM	NM	NM	NM	E98, C00, F03, H10
MEPM-A11	9/17/2009	12:03	YSI 650 MDS	Solinst 101	7.77	6.6	16.5	11.03	0.34	2509	F99, B03, D11, I10
MEPM-A11	9/24/2009	9:32	YSI 650 MDS	Solinst 101	8.15	6.86	-103	12.72	2.31	1213	D02, A04, D99, E00
MEPM-A11	9/24/2009	10:28	YSI 650 MDS	Solinst 101	7.72	6.8	-92.1	12.65	2.35	1366	D03, A03, C00, F01
MEPM-A11	9/24/2009	12:57	YSI 650 MDS	Solinst 101	7.55	6.6	-74.1	12.31	1.94	2913	F03, D06D, F99, D01
MEPM-A11	9/24/2009	14:14	YSI 650 MDS	Solinst 101	7.9	7.55	-146.7	12.43	1.89	2189	B03, F09, E98, F02
MEPM-A11	9/25/2009	9:14	YSI 650 MDS	Solinst 101	8.19	7.95	-190.3	12.41	0.88	1702	D01, F08, E98, F03
MEPM-A11	9/25/2009	10:35	YSI 650 MDS	Solinst 101	7.7	7.32	-149.2	12.38	1.85	3134	D02, F06, D99, A04
MEPM-A11	9/25/2009	11:50	YSI 650 MDS	Solinst 101	7.2	6.46	-44.3	12.39	1.53	3864	D03, D06D, F99, A04
MEPM-A11	9/25/2009	12:30	YSI 650 MDS	Solinst 101	7.21	NM	NM	NM	NM	NM	A03
MEPM-A11	9/25/2009	12:52	YSI 650 MDS	Solinst 101	7.63	9.95	-229	12.51	6.11	3697	C00
MEPM-A11	9/28/2009	11:23	YSI 650 MDS	Solinst 101	8.2	8.4	-185.6	12.7	1.57	1776	D09, D11, E00, B03
MEPM-A11	9/28/2009	13:18	YSI 650 MDS	Solinst 101	7.88	9.13	-203.8	12.74	2.32	2294	D10, F11, F01, F06
MEPM-A11	9/28/2009	15:10	YSI 650 MDS	Solinst 101	7.51	8.39	-159.2	12.8	3.74	3734	
MEPM-A11	9/29/2009	10:08	YSI 650 MDS	Solinst 101	8.15	9.27	-169.9	12.9	4.69	2117	
MEPM-A11	9/29/2009	15:07	YSI 650 MDS	Solinst 101	8.01	9.82	-214.1	13.14	4.38	1163	
MEPM-A11	9/30/2009	11:28	YSI 650 MDS	Solinst 101	8.29	10.83	-205	13.14	6.29	1751	
MEPM-A11	9/30/2009	15:29	YSI 650 MDS	Solinst 101	8.25	10.23	-222	13.08	4.15	2322	
MEPM-A11	10/1/2009	9:38	YSI 650 MDS	Solinst 101	8.35	10.8	-228.2	13.1	5.39	1323	
MEPM-A11	10/1/2009	14:25	YSI 650 MDS	Solinst 101	8.3	10.72	-300.9	13.13	5.28	1502	
MEPM-A11	10/2/2009	10:31	YSI 650 MDS	Solinst 101	8.35	10.03	-286.5	13.46	3.67	1515	
MEPM-A11	10/2/2009	14:42	YSI 650 MDS	Solinst 101	8.3	10.91	-316.5	13.39	5.47	1573	
MEPM-A11	10/5/2009	11:54	YSI 650 MDS	Solinst 101	8.27	6.23	-41.2	13.76	3.38	1819	

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A11	10/5/2009	16:11	YSI 650 MDS	Solinst 101	8.25	6.03	-60.7	13.63	1.31	1914	
MEPM-A11	10/6/2009	9:40	YSI 650 MDS	Solinst 101	8.26	8.21	-212	13.96	3.64	1850	
MEPM-A11	10/6/2009	14:44	YSI 650 MDS	Solinst 101	11.47	NM	NM	NM	NM	NM	
MEPM-A11	10/6/2009	15:04	YSI 650 MDS	Solinst 101	8.21	5.9	-89.7	13.75	18.31	1914	
MEPM-A11	10/7/2009	15:49	YSI 650 MDS	Solinst 101	8.2	5.84	-77.5	13.89	1.59	1933	
MEPM-A11	10/8/2009	12:56	YSI 650 MDS	Solinst 101	8.2	6.03	-62.5	13.92	1.83	2121	
MEPM-A11	10/8/2009	16:05	YSI 650 MDS	Solinst 101	8.17	6.07	-49.8	13.88	5.07	2184	
MEPM-A11	10/9/2009	10:38	YSI 650 MDS	Solinst 101	8	9.08	-142.5	14.07	12.08	1896	
MEPM-A11	10/9/2009	13:17	YSI 650 MDS	Solinst 101	7.75	9.07	-140.7	13.78	13.66	2317	
MEPM-A11	10/12/2009	11:30	YSI 650 MDS	Solinst 101	7.47	5.37	69	13.85	4.78	3286	
MEPM-A11	10/12/2009	14:23	YSI 650 MDS	Solinst 101	7.47	9.16	-160.4	14.15	6.02	2660	
MEPM-A11	10/13/2009	11:21	YSI 650 MDS	Solinst 101	7.82	9.86	-142.1	14.02	6.15	2769	
MEPM-A11	10/13/2009	14:01	YSI 650 MDS	Solinst 101	7.72	8.85	-81.2	14.14	7.48	2658	
MEPM-A11	10/14/2009	10:43	YSI 650 MDS	Solinst 101	8	9.46	-205.2	14.08	3.17	2380	
MEPM-A11	10/14/2009	13:42	YSI 650 MDS	Solinst 101	7.95	9.37	-219.2	14.18	3.16	2427	
MEPM-A11	10/15/2009	10:07	YSI 650 MDS	Solinst 101	7.8	9.61	-255.5	13.99	3.01	2266	
MEPM-A11	10/15/2009	12:59	YSI 650 MDS	Solinst 101	7.95	8.91	-234.7	14.03	4.65	2306	
MEPM-A12	9/10/2009	11:52	YSI 650 MDS	Solinst 101	10.1	5.74	78.3	18.13	4.11	892	Baseline
MEPM-A12	9/15/2009	14:55	YSI 650 MDS	Solinst 101	9.8	5.83	-4.2	10.94	1.03	13288	H14, F03, F07D
MEPM-A12	9/15/2009	15:55	YSI 650 MDS	Solinst 101	9.95	5.92	-10.7	10.93	0.99	17299	F08
MEPM-A12	9/16/2009	9:50	YSI 650 MDS	Solinst 101	9.88	5.8	31.1	10.75	1.39	18655	E98, E00, B03, F07D
MEPM-A12	9/16/2009	11:05	YSI 650 MDS	Solinst 101	10.02	NM	NM	NM	NM	NM	F01, A04
MEPM-A12	9/16/2009	11:40	YSI 650 MDS	Solinst 101	9.95	5.79	44.7	11.25	0.95	16076	D99, F01, D07D, A04
MEPM-A12	9/16/2009	13:02	YSI 650 MDS	Solinst 101	10	NM	NM	NM	NM	NM	C00, D01, A03
MEPM-A12	9/16/2009	14:20	YSI 650 MDS	Solinst 101	9.87	5.43	44.9	10.7	1.19	17981	F99, D02, D06D, F09
MEPM-A12	9/16/2009	15:45	YSI 650 MDS	Solinst 101	9.6	NM	NM	NM	NM	NM	F09, F06, D03, F01
MEPM-A12	9/16/2009	16:15	YSI 650 MDS	Solinst 101	9.6	5.88	25.3	10.79	0.81	16059	F09, F06, D03, F01
MEPM-A12	9/24/2009	9:25	YSI 650 MDS	Solinst 101	10.02	6.4	-72.5	12.71	2.27	11662	D02, A04, D99, E00
MEPM-A12	9/24/2009	10:22	YSI 650 MDS	Solinst 101	9.92	6.08	-36.3	11.01	3.44	17483	D03, A03, C00, F01
MEPM-A12	9/24/2009	12:48	YSI 650 MDS	Solinst 101	9.89	4.64	6.2	12.09	5.47	16662	F03, D06D, D01
MEPM-A12	9/24/2009	14:18	YSI 650 MDS	Solinst 101	10	6.45	-67.6	11.55	2	14981	B03, F09, E98, F02
MEPM-A12	9/24/2009	15:10	YSI 650 MDS	Solinst 101	9.85	NM	NM	NM	NM	NM	F07D
MEPM-A12	9/25/2009	10:00	YSI 650 MDS	Solinst 101	9.82	NM	NM	NM	NM	NM	D02, D07D, D99

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A12	9/25/2009	10:38	YSI 650 MDS	Solinst 101	9.71	6.31	-70.4	11.24	1.2	14149	D02, F06, D99, A04
MEPM-A12	9/25/2009	11:41	YSI 650 MDS	Solinst 101	9.91	5.72	46.4	11	2.02	15373	D13, D06D, A04
MEPM-A12	9/25/2009	12:35	YSI 650 MDS	Solinst 101	10	NM	NM	NM	NM	NM	A03
MEPM-A12	9/25/2009	12:57	YSI 650 MDS	Solinst 101	10	6.92	-99.9	11.18	3.86	17153	C00
MEPM-A12	9/28/2009	11:31	YSI 650 MDS	Solinst 101	10.1	5.96	-34.9	11.25	1.64	15311	E00, B03
MEPM-A12	9/28/2009	13:26	YSI 650 MDS	Solinst 101	9.86	6.44	-72.8	11.26	2.6	13163	D10, F11, F01, F06
MEPM-A12	9/28/2009	15:19	YSI 650 MDS	Solinst 101	10	6.3	-51.4	11.14	3.95	15614	
MEPM-A12	9/29/2009	10:14	YSI 650 MDS	Solinst 101	9.95	6.53	-66.2	11.42	4.35	18051	
MEPM-A12	9/29/2009	15:16	YSI 650 MDS	Solinst 101	10.04	6.68	-74.8	11.72	4.39	12635	
MEPM-A12	9/30/2009	11:33	YSI 650 MDS	Solinst 101	10.1	6.87	-103.5	13.66	4.68	11961	
MEPM-A12	9/30/2009	15:36	YSI 650 MDS	Solinst 101	10.1	6.59	-97.7	12.15	2.69	16455	
MEPM-A12	10/1/2009	9:43	YSI 650 MDS	Solinst 101	10.09	6.96	-115.1	13.71	4.72	13227	
MEPM-A12	10/1/2009	14:30	YSI 650 MDS	Solinst 101	10.08	7.18	-120.6	13.78	4.21	13035	
MEPM-A12	10/2/2009	10:37	YSI 650 MDS	Solinst 101	10.13	6.95	-121.4	14.13	3.4	14500	
MEPM-A12	10/2/2009	14:47	YSI 650 MDS	Solinst 101	10.1	7.28	-129.7	13.99	3.85	14738	
MEPM-A12	10/5/2009	11:48	YSI 650 MDS	Solinst 101	10.07	5.23	56	13.76	2.67	15601	
MEPM-A12	10/5/2009	16:05	YSI 650 MDS	Solinst 101	10.08	6.46	118.7	12.86	3.31	18416	
MEPM-A12	10/6/2009	9:44	YSI 650 MDS	Solinst 101	10.07	6.27	-23.7	13.38	4.72	17390	
MEPM-A12	10/6/2009	14:57	YSI 650 MDS	Solinst 101	10.08	3.95	300.9	12.82	26.73	19935	
MEPM-A12	10/7/2009	15:43	YSI 650 MDS	Solinst 101	10.05	4.19	150.8	13.39	1.47	18916	
MEPM-A12	10/8/2009	12:50	YSI 650 MDS	Solinst 101	10.1	3.25	365.2	13.2	1.99	21475	
MEPM-A12	10/8/2009	15:59	YSI 650 MDS	Solinst 101	10.05	2.85	408.3	12.9	4.47	22726	
MEPM-A12	10/9/2009	10:44	YSI 650 MDS	Solinst 101	10	6.02	147.3	12.47	11.98	19675	
MEPM-A12	10/9/2009	10:55	YSI 650 MDS	Solinst 101	10.9	2.07	-129.5	14.61	11.01	98769	
MEPM-A12	10/9/2009	13:20	YSI 650 MDS	Solinst 101	9.95	6.19	177.5	12.27	12.17	19950	
MEPM-A12	10/12/2009	11:26	YSI 650 MDS	Solinst 101	9.9	2.97	433.1	12.49	6.64	16514	
MEPM-A12	10/12/2009	14:27	YSI 650 MDS	Solinst 101	7.95	6.2	146.1	12.43	7.84	25056	
MEPM-A12	10/13/2009	11:24	YSI 650 MDS	Solinst 101	7.82	6.33	138	12.7	6.43	28343	
MEPM-A12	10/13/2009	14:05	YSI 650 MDS	Solinst 101	7.82	6.01	190.2	12.91	6.63	26779	
MEPM-A12	10/14/2009	10:49	YSI 650 MDS	Solinst 101	9.95	4.91	361.3	13.16	3.31	24233	
MEPM-A12	10/14/2009	13:49	YSI 650 MDS	Solinst 101	9.92	3.36	463.7	12.84	3	26312	
MEPM-A12	10/15/2009	10:15	YSI 650 MDS	Solinst 101	9.85	3.31	276	12.58	2.86	23697	
MEPM-A12	10/15/2009	13:12	YSI 650 MDS	Solinst 101	9.9	3.2	263.7	13.14	3.49	23728	

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A13	9/10/2009	11:48	YSI 650 MDS	Solinst 101	10.35	3	305.6	15.69	1.22	16670	Baseline
MEPM-A13	9/14/2009	11:35	YSI 650 MDS	Solinst 101	9.55	3.1	311.1	10.38	0.7	21876	I15, I11
MEPM-A13	9/14/2009	12:25	YSI 650 MDS	Solinst 101	9.25	3.13	310.8	10.35	0.77	21633	H16, H14, H11
MEPM-A13	9/14/2009	14:20	YSI 650 MDS	Solinst 101	10.4	3.05	313.7	10.36	0.64	22575	F14, J13, F11, I10
MEPM-A13	9/14/2009	16:35	YSI 650 MDS	Solinst 101	9.7	3.07	313.3	10.36	1.07	22536	I15, F10, F08, F15
MEPM-A13	9/15/2009	10:00	YSI 650 MDS	Solinst 101	9.5	3.18	314.7	10.36	0.94	22309	H12, H10, D08D, D02
MEPM-A13	9/15/2009	11:25	YSI 650 MDS	Solinst 101	9.6	3.17	313.3	10.39	0.98	22307	H13, F09, D03
MEPM-A13	9/15/2009	13:00	YSI 650 MDS	Solinst 101	9.5	3.16	310.4	10.42	1	21809	D09, I13
MEPM-A13	9/15/2009	14:20	YSI 650 MDS	Solinst 101	9.3	3.16	310.3	10.46	1.01	21690	A04, F02
MEPM-A13	9/17/2009	9:35	YSI 650 MDS	Solinst 101	9.7	3.16	326.5	10.47	0.87	21244	F02, E00, F11, D99
MEPM-A13	9/17/2009	10:35	YSI 650 MDS	Solinst 101	9.45	NM	NM	NM	NM	NM	E98, C00, F03, F10
MEPM-A13	9/17/2009	12:15	YSI 650 MDS	Solinst 101	9	3.22	310.9	10.41	1.46	21294	F99, B03, D11, I10
MEPM-A13	9/17/2009	14:00	YSI 650 MDS	Solinst 101	9.22	NM	NM	NM	NM	NM	I17, L20, D10, H10
MEPM-A13	9/17/2009	15:25	YSI 650 MDS	Solinst 101	9.5	3.25	282.8	10.46	1.29	21432	H17, K22, I14, H11
MEPM-A13	9/17/2009	15:55	YSI 650 MDS	Solinst 101	9.35	NM	NM	NM	NM	NM	
MEPM-A13	9/28/2009	10:35	YSI 650 MDS	Solinst 101	10.2	NM	NM	NM	NM	NM	D09, D11
MEPM-A13	9/28/2009	11:43	YSI 650 MDS	Solinst 101	9.92	2.64	527.4	11.58	1.47	39948	E00, B03
MEPM-A13	9/28/2009	12:50	YSI 650 MDS	Solinst 101	10.1	NM	NM	NM	NM	NM	D10, F11
MEPM-A13	9/28/2009	13:38	YSI 650 MDS	Solinst 101	9.72	2.65	503.2	11.33	2.23	45407	D10, F11, F01, F06
MEPM-A13	9/28/2009	14:20	YSI 650 MDS	Solinst 101	9.8	NM	NM	NM	NM	NM	
MEPM-A13	9/28/2009	15:37	YSI 650 MDS	Solinst 101	9.9	3.09	570.1	11.59	3.01	48933	
MEPM-A13	9/29/2009	10:18	YSI 650 MDS	Solinst 101	10.15	2.71	497.3	11.64	3.86	47801	
MEPM-A13	9/29/2009	15:19	YSI 650 MDS	Solinst 101	10.19	3.14	519	11.83	4.01	38667	
MEPM-A13	9/30/2009	11:35	YSI 650 MDS	Solinst 101	10.2	2.86	492.2	12.18	4.14	43933	
MEPM-A13	9/30/2009	15:40	YSI 650 MDS	Solinst 101	10.02	2.87	484.7	11.99	3.54	50318	
MEPM-A13	10/1/2009	9:45	YSI 650 MDS	Solinst 101	10.17	2.86	477.9	12.11	4.4	40836	
MEPM-A13	10/1/2009	14:32	YSI 650 MDS	Solinst 101	10.15	3.42	454.7	12.15	4.71	40909	
MEPM-A13	10/2/2009	10:40	YSI 650 MDS	Solinst 101	10.2	2.53	478.6	12.2	3.92	33610	
MEPM-A13	10/2/2009	14:49	YSI 650 MDS	Solinst 101	10	3.28	423.8	12.33	4.42	41909	
MEPM-A13	10/5/2009	11:43	YSI 650 MDS	Solinst 101	10.07	2.49	525.6	12.39	3.23	41105	
MEPM-A13	10/5/2009	16:03	YSI 650 MDS	Solinst 101	10	2.62	526.6	12.24	2.05	58512	
MEPM-A13	10/6/2009	9:47	YSI 650 MDS	Solinst 101	10.05	3.15	534.4	12.38	8.01	39188	
MEPM-A13	10/6/2009	14:52	YSI 650 MDS	Solinst 101	9.95	2.25	584.5	12.36	17.93	58843	

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A13	10/7/2009	15:41	YSI 650 MDS	Solinst 101	10.1	2.13	573.9	12.41	1.32	48135	
MEPM-A13	10/8/2009	12:47	YSI 650 MDS	Solinst 101	10	3.54	426.9	13.77	8.13	14094	
MEPM-A13	10/8/2009	15:57	YSI 650 MDS	Solinst 101	9.92	2.38	517.4	12.47	3.5	38344	
MEPM-A13	10/9/2009	10:45	YSI 650 MDS	Solinst 101	9.59	4.28	310.6	12.3	11.39	59034	
MEPM-A13	10/9/2009	13:21	YSI 650 MDS	Solinst 101	9.4	5.01	90.8	12.39	8.95	69383	
MEPM-A13	10/12/2009	11:23	YSI 650 MDS	Solinst 101	9.82	2.66	440.3	12.91	8.19	67011	
MEPM-A13	10/12/2009	14:29	YSI 650 MDS	Solinst 101	9.68	4.39	320.1	12.6	5.96	76430	
MEPM-A13	10/13/2009	11:26	YSI 650 MDS	Solinst 101	9.7	4.18	336.2	13.14	6.68	62667	
MEPM-A13	10/13/2009	14:07	YSI 650 MDS	Solinst 101	9.8	3.64	416.3	13.03	8.22	31204	
MEPM-A13	10/14/2009	10:52	YSI 650 MDS	Solinst 101	9.77	2.76	481.2	12.66	2.94	38459	
MEPM-A13	10/14/2009	13:55	YSI 650 MDS	Solinst 101	9.73	2.11	526.6	12.63	3.57	27553	
MEPM-A13	10/15/2009	10:17	YSI 650 MDS	Solinst 101	9.9	3.03	398.4	12.64	3.32	34594	
MEPM-A13	10/15/2009	13:15	YSI 650 MDS	Solinst 101	9.95	5.18	143	12.89	4.52	37606	
MEPM-A14	9/10/2009	11:45	YSI 650 MDS	Solinst 101	10	5.84	38.3	15.89	2.4	2753	Baseline
MEPM-A14	9/14/2009	11:30	YSI 650 MDS	Solinst 101	8.9	4.62	134.3	10.72	0.52	5441	I15, I11
MEPM-A14	9/14/2009	12:20	YSI 650 MDS	Solinst 101	8.2	4.46	186.8	10.53	0.59	7898	H16, H14, H11, D11
MEPM-A14	9/14/2009	14:15	YSI 650 MDS	Solinst 101	8.8	3.54	252.8	10.39	0.68	11237	F14, I13, F11, I10
MEPM-A14	9/14/2009	16:30	YSI 650 MDS	Solinst 101	8.85	4.66	76.6	10.87	0.87	11299	F10, F08, F15
MEPM-A14	9/15/2009	9:50	YSI 650 MDS	Solinst 101	8.8	2.87	408.6	10.84	0.81	16084	H12, H10, D08D, D02
MEPM-A14	9/15/2009	11:20	YSI 650 MDS	Solinst 101	9.03	3.09	409.9	11.05	0.97	11040	D03, F09, H13
MEPM-A14	9/15/2009	13:05	YSI 650 MDS	Solinst 101	8.8	3.42	361.4	10.78	0.79	9106	F02, F06, F13
MEPM-A14	9/15/2009	14:15	YSI 650 MDS	Solinst 101	8.95	4.28	241	10.86	0.94	8293	F02, F13, A04
MEPM-A14	9/15/2009	15:27	YSI 650 MDS	Solinst 101	9.05	3.18	379.5	10.9	1.03	12430	A03, H14, F03, F08
MEPM-A14	9/16/2009	9:30	YSI 650 MDS	Solinst 101	9.71	4.96	16	11.04	1.29	7027	F98, E00, B03, F07D
MEPM-A14	9/16/2009	11:00	YSI 650 MDS	Solinst 101	9.8	NM	NM	NM	NM	NM	F01, A04
MEPM-A14	9/16/2009	11:40	YSI 650 MDS	Solinst 101	9.79	5.43	115.2	11.31	1.92	6663	D99, F01, D07D, A04
MEPM-A14	9/16/2009	13:00	YSI 650 MDS	Solinst 101	9.6	NM	NM	NM	NM	NM	C00, D01, A03
MEPM-A14	9/16/2009	14:15	YSI 650 MDS	Solinst 101	8.9	4.42	180.2	11.35	1.26	8704	F99, D02, D06D,
MEPM-A14	9/16/2009	15:42	YSI 650 MDS	Solinst 101	9.3	NM	NM	NM	NM	NM	F09, F06, D03, F01
MEPM-A14	9/16/2009	16:10	YSI 650 MDS	Solinst 101	8.86	5.18	158.4	11.28	1.17	8233	F09, D09, F06, D03, F01
MEPM-A14	9/17/2009	9:30	YSI 650 MDS	Solinst 101	9.1	5.21	174.1	11.35	0.7	6418	F02, E00, F11, D99
MEPM-A14	9/17/2009	10:30	YSI 650 MDS	Solinst 101	8.65	NM	NM	NM	NM	NM	E98, C00, F03, F10
MEPM-A14	9/17/2009	11:45	YSI 650 MDS	Solinst 101	8.29	5.8	154.6	11.74	0.81	13899	B03, D11, I10

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A14	9/17/2009	13:55	YSI 650 MDS	Solinst 101	8.43	NM	NM	NM	NM	NM	I17, L20, D10, H10
MEPM-A14	9/17/2009	15:22	YSI 650 MDS	Solinst 101	8.98	10.23	-174.5	11.63	0.49	29155	H17, K22, I14, H11
MEPM-A14	9/17/2009	15:57	YSI 650 MDS	Solinst 101	8.7	NM	NM	NM	NM	NM	K22, H11
MEPM-A14	9/22/2009	9:27	YSI 650 MDS	Solinst 101	9.95	NM	NM	NM	NM	NM	I21, K20, H13, J15
MEPM-A14	9/22/2009	10:34	YSI 650 MDS	Solinst 101	9.85	5.35	16.3	12.42	0.84	8556	I22, I15, H13
MEPM-A14	9/22/2009	12:27	YSI 650 MDS	Solinst 101	9.75	5.85	-26.6	12.36	1.27	8309	H22, H12, H15
MEPM-A14	9/22/2009	14:05	YSI 650 MDS	Solinst 101	9.5	NM	NM	NM	NM	NM	
MEPM-A14	9/22/2009	15:02	YSI 650 MDS	Solinst 101	8.6	5.44	27	12.32	2.51	8405	
MEPM-A14	9/22/2009	16:00	YSI 650 MDS	Solinst 101	8.76	NM	NM	NM	NM	NM	
MEPM-A14	9/23/2009	9:36	YSI 650 MDS	Solinst 101	8.95	5.47	-6.8	12.45	1.56	12562	F11, D09, H17, I19
MEPM-A14	9/23/2009	11:24	YSI 650 MDS	Solinst 101	8	6.38	-88.5	12.82	1.78	4969	F10, D08D, I14, H19
MEPM-A14	9/23/2009	13:38	YSI 650 MDS	Solinst 101	9.1	8.86	73	13.17	5.33	27351	F09, D07D, H11, F19
MEPM-A14	9/23/2009	14:35	YSI 650 MDS	Solinst 101	8.05	NM	NM	NM	NM	NM	F08, D10, I17
MEPM-A14	9/23/2009	15:13	YSI 650 MDS	Solinst 101	7.6	4.57	144.7	13.12	5.71	21874	F08, D10, H10, I13
MEPM-A14	9/24/2009	14:22	YSI 650 MDS	Solinst 101	9.59	6.24	-49.6	12.53	2.19	10477	B03, F09, E98, D01
MEPM-A14	9/25/2009	9:21	YSI 650 MDS	Solinst 101	9.6	5.94	-40.5	12.63	1.32	14397	D01, F08, E98, F03
MEPM-A14	9/25/2009	10:42	YSI 650 MDS	Solinst 101	9.69	6.06	-48.6	12.63	1.43	13398	F06, D99, A04
MEPM-A14	9/25/2009	11:37	YSI 650 MDS	Solinst 101	9.69	3.76	233.3	12.68	2.08	16875	D03, D06D, F99, A04
MEPM-A14	9/25/2009	12:36	YSI 650 MDS	Solinst 101	9.61	NM	NM	NM	NM	NM	A03
MEPM-A14	9/25/2009	12:59	YSI 650 MDS	Solinst 101	9.68	6.62	-79.4	12.63	2.86	10419	C00
MEPM-A14	9/28/2009	10:34	YSI 650 MDS	Solinst 101	9.1	NM	NM	NM	NM	NM	D09, D11
MEPM-A14	9/28/2009	11:40	YSI 650 MDS	Solinst 101	9.15	5.56	21.8	13.02	1.33	13846	E00, B03
MEPM-A14	9/28/2009	12:51	YSI 650 MDS	Solinst 101	8.6	NM	NM	NM	NM	NM	D10, F11, F06
MEPM-A14	9/28/2009	13:34	YSI 650 MDS	Solinst 101	8.25	5.71	13	14.61	2.66	4826	D10, D11, F11, F06
MEPM-A14	9/28/2009	14:22	YSI 650 MDS	Solinst 101	8.4	NM	NM	NM	NM	NM	
MEPM-A14	9/28/2009	15:33	YSI 650 MDS	Solinst 101	8.8	12.74	21.1	13.31	2.74	36195	
MEPM-A14	9/29/2009	10:20	YSI 650 MDS	Solinst 101	9.55	4.94	204.9	13.15	4.13	15419	
MEPM-A14	9/29/2009	15:21	YSI 650 MDS	Solinst 101	9.59	3.29	447.4	13.23	3.92	18422	
MEPM-A14	9/30/2009	11:37	YSI 650 MDS	Solinst 101	9.84	4.66	186.1	13.18	4.78	14101	
MEPM-A14	9/30/2009	15:43	YSI 650 MDS	Solinst 101	9.7	3.01	445.7	13.27	4.23	24644	
MEPM-A14	10/1/2009	9:48	YSI 650 MDS	Solinst 101	10	4.63	166	13.28	4.44	18027	
MEPM-A14	10/1/2009	14:35	YSI 650 MDS	Solinst 101	9.9	5.15	73.1	13.28	4.67	14278	
MEPM-A14	10/2/2009	10:42	YSI 650 MDS	Solinst 101	9.8	5.54	17.2	13.37	4.76	13670	

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A14	10/2/2009	14:51	YSI 650 MDS	Solinst 101	9.82	4.84	111.9	13.4	4.86	15249	
MEPM-A14	10/5/2009	11:41	YSI 650 MDS	Solinst 101	9.82	5.01	77.6	13.63	5.62	11189	
MEPM-A14	10/5/2009	16:01	YSI 650 MDS	Solinst 101	9.75	5.28	59.1	13.62	3.49	11558	
MEPM-A14	10/6/2009	9:49	YSI 650 MDS	Solinst 101	9.78	4.65	103.3	13.67	6.09	16156	
MEPM-A14	10/6/2009	14:55	YSI 650 MDS	Solinst 101	9.68	4.66	-15.6	13.66	26.05	12040	
MEPM-A14	10/7/2009	15:39	YSI 650 MDS	Solinst 101	9.83	4.91	-9.3	13.74	1.5	11561	
MEPM-A14	10/8/2009	12:46	YSI 650 MDS	Solinst 101	9.8	5.2	-18.6	13.82	2.86	7075	
MEPM-A14	10/8/2009	15:54	YSI 650 MDS	Solinst 101	9.7	5.11	-2.8	13.79	4.67	12720	
MEPM-A14	10/9/2009	10:47	YSI 650 MDS	Solinst 101	8.5	4.23	303.8	14.01	12.47	10257	
MEPM-A14	10/9/2009	13:23	YSI 650 MDS	Solinst 101	8.3	4.54	376.7	13.92	9.55	39833	
MEPM-A14	10/12/2009	11:24	YSI 650 MDS	Solinst 101	9.25	3.57	350.6	13.94	5.91	9920	
MEPM-A14	10/12/2009	14:30	YSI 650 MDS	Solinst 101	9.1	3.93	348	14.34	7.59	5531	
MEPM-A14	10/13/2009	11:28	YSI 650 MDS	Solinst 101	9.1	3.74	335	14.07	7.87	9459	
MEPM-A14	10/13/2009	14:08	YSI 650 MDS	Solinst 101	9.5	3.37	331	14.09	9.37	8204	
MEPM-A14	10/14/2009	10:55	YSI 650 MDS	Solinst 101	9.6	4.83	126.6	13.98	2.13	15132	
MEPM-A14	10/14/2009	13:56	YSI 650 MDS	Solinst 101	9.55	4.77	185.2	14	2.78	18552	
MEPM-A14	10/15/2009	10:20	YSI 650 MDS	Solinst 101	9.72	5.21	127.2	14	2.7	9877	
MEPM-A14	10/15/2009	13:24	YSI 650 MDS	Solinst 101	10	7.15	175.5	14.12	4.13	17271	
MEPM-A15D	9/10/2009	11:41	YSI 650 MDS	Solinst 101	11.25	2.8	331.9	15.14	0.85	18079	Baseline
MEPM-A15D	9/14/2009	11:08	YSI 650 MDS	Solinst 101	9.95	2.94	330.9	11.09	0.88	23283	H17, I15, I11, D10
MEPM-A15D	9/14/2009	12:18	YSI 650 MDS	Solinst 101	9.35	2.63	331.9	11.13	0.89	23369	H16, H14, H11, D11
MEPM-A15D	9/14/2009	14:10	YSI 650 MDS	Solinst 101	10.05	2.72	331.7	10.94	0.66	23447	F14, I13, I10
MEPM-A15D	9/14/2009	16:25	YSI 650 MDS	Solinst 101	10.8	2.8	331	11.23	1.19	23479	I15, I10, F08, F15
MEPM-A15D	9/15/2009	9:45	YSI 650 MDS	Solinst 101	10	2.89	331.2	11.04	0.95	23547	H12, H10, D08D, D02
MEPM-A15D	9/15/2009	11:10	YSI 650 MDS	Solinst 101	10.16	2.82	331.4	11.36	1.06	23518	H13, F09, D07D, D03
MEPM-A15D	9/15/2009	12:53	YSI 650 MDS	Solinst 101	10.05	2.64	330.3	11.26	1.06	23506	D09, D06D, D01, I13
MEPM-A15D	9/15/2009	14:10	YSI 650 MDS	Solinst 101	10.05	2.63	330.4	11.33	1.01	23488	F06, F13, A04
MEPM-A15D	9/15/2009	15:25	YSI 650 MDS	Solinst 101	10.27	2.97	326.7	11.36	1.48	24429	H14, F03, F08
MEPM-A15D	9/17/2009	9:27	YSI 650 MDS	Solinst 101	10.3	2.95	296.2	11.27	1.17	22762	F02, E00, F11, D99
MEPM-A15D	9/17/2009	10:32	YSI 650 MDS	Solinst 101	10	NM	NM	NM	NM	NM	E98, C00, F03, F10
MEPM-A15D	9/17/2009	11:40	YSI 650 MDS	Solinst 101	9.65	2.92	336.9	11.21	1.53	22973	D11, I10
MEPM-A15D	9/17/2009	13:53	YSI 650 MDS	Solinst 101	9.79	NM	NM	NM	NM	NM	I17, L20, D10, H10
MEPM-A15D	9/17/2009	15:20	YSI 650 MDS	Solinst 101	9.8	2.87	295.9	11.21	0.91	23247	H17, K22, I14, H11

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
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Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A15D	9/17/2009	16:02	YSI 650 MDS	Solinst 101	9.2	NM	NM	NM	NM	NM	K22, H11
MEPM-A15D	9/18/2009	9:05	YSI 650 MDS	Solinst 101	10.34	3.21	346.2	11.28	1.99	22582	I11, F14, F17
MEPM-A15D	9/18/2009	9:55	YSI 650 MDS	Solinst 101	10.45	NM	NM	NM	NM	NM	F17, K20, F15
MEPM-A15D	9/18/2009	10:37	YSI 650 MDS	Solinst 101	10.65	2.95	354.2	11.58	1.13	22535	I13, F19, J20, H15
MEPM-A15D	9/18/2009	11:12	YSI 650 MDS	Solinst 101	10.7	NM	NM	NM	NM	NM	I13, H13, F19
MEPM-A15D	9/18/2009	11:32	YSI 650 MDS	Solinst 101	10.37	NM	NM	NM	NM	NM	H13, H12
MEPM-A15D	9/18/2009	13:30	YSI 650 MDS	Solinst 101	10.45	2.86	395.1	11.54	1.45	22461	H19, H12, J15
MEPM-A15D	9/21/2009	10:02	YSI 650 MDS	Solinst 101	11	2.95	414.8	11.55	1.09	22481	I13, H16, H21, J22
MEPM-A15D	9/21/2009	11:03	YSI 650 MDS	Solinst 101	10.85	NM	NM	NM	NM	NM	H12
MEPM-A15D	9/21/2009	11:25	YSI 650 MDS	Solinst 101	10.8	2.29	451.4	11.93	1.96	22406	H12, F21, I21, J23
MEPM-A15D	9/21/2009	11:57	YSI 650 MDS	Solinst 101	10.65	NM	NM	NM	NM	NM	F13, J20, I21, J23
MEPM-A15D	9/21/2009	12:57	YSI 650 MDS	Solinst 101	10.6	2.42	476.8	12.12	1.75	22638	F14, I16, H22, K22
MEPM-A15D	9/21/2009	14:15	YSI 650 MDS	Solinst 101	10.9	NM	NM	NM	NM	NM	H14, I16, I22, L20
MEPM-A15D	9/22/2009	9:25	YSI 650 MDS	Solinst 101	11.05	NM	NM	NM	NM	NM	I21, K20, H13, J15
MEPM-A15D	9/22/2009	10:30	YSI 650 MDS	Solinst 101	10.9	2.79	317.2	12.1	1.55	22844	I22, I15, H13
MEPM-A15D	9/22/2009	11:41	YSI 650 MDS	Solinst 101	11	NM	NM	NM	NM	NM	I22, L22, I13
MEPM-A15D	9/22/2009	12:23	YSI 650 MDS	Solinst 101	10.7	3.11	335.1	12.1	1.73	22601	H22, H12, H15
MEPM-A15D	9/22/2009	14:09	YSI 650 MDS	Solinst 101	10.32	NM	NM	NM	NM	NM	H21
MEPM-A15D	9/22/2009	15:10	YSI 650 MDS	Solinst 101	9.44	2.96	357.7	12.06	1.74	23293	I17, I10, D11
MEPM-A15D	9/22/2009	16:03	YSI 650 MDS	Solinst 101	9.51	NM	NM	NM	NM	NM	F21, I10, F17
MEPM-A15D	9/23/2009	9:44	YSI 650 MDS	Solinst 101	9.7	2.85	273.4	12.22	1.22	22823	F11, D09, H17, I19
MEPM-A15D	9/23/2009	11:31	YSI 650 MDS	Solinst 101	9.35	2.87	299.2	12.27	1.34	23220	F10, D08D, I14, H19
MEPM-A15D	9/23/2009	13:44	YSI 650 MDS	Solinst 101	9.7	2.66	325.2	12.36	3.59	23440	F09, D07D, H11, F19
MEPM-A15D	9/23/2009	14:41	YSI 650 MDS	Solinst 101	9.25	NM	NM	NM	NM	NM	F08, D10, H16
MEPM-A15D	9/23/2009	15:20	YSI 650 MDS	Solinst 101	8.86	2.65	326.4	12.31	4.02	23512	F08, D10, H10, I13
MEPM-A15D	9/28/2009	10:32	YSI 650 MDS	Solinst 101	10.57	NM	NM	NM	NM	NM	D09, D11
MEPM-A15D	9/28/2009	11:38	YSI 650 MDS	Solinst 101	10.02	3.09	206.1	15.2	1.43	17764	E00, B03
MEPM-A15D	9/28/2009	12:54	YSI 650 MDS	Solinst 101	9.95	NM	NM	NM	NM	NM	D10, F11, F06
MEPM-A15D	9/28/2009	13:31	YSI 650 MDS	Solinst 101	9.5	3.02	227.3	13.03	3.14	20167	D10, F11, F01, F06
MEPM-A15D	9/28/2009	14:24	YSI 650 MDS	Solinst 101	9.35	NM	NM	NM	NM	NM	
MEPM-A15D	9/28/2009	15:30	YSI 650 MDS	Solinst 101	9.61	3.02	250.7	13.15	4.31	20173	
MEPM-A15D	9/29/2009	10:22	YSI 650 MDS	Solinst 101	10.42	3.06	327.5	13.11	4.87	22805	
MEPM-A15D	9/29/2009	15:24	YSI 650 MDS	Solinst 101	10.25	3.06	364.9	13.12	4.77	17203	

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A15D	9/30/2009	11:39	YSI 650 MDS	Solinst 101	11.6	2.9	374.2	13.22	5.35	20850	
MEPM-A15D	9/30/2009	15:47	YSI 650 MDS	Solinst 101	10.65	2.75	382.7	13.2	6.35	21829	
MEPM-A15D	10/1/2009	9:50	YSI 650 MDS	Solinst 101	10.9	2.77	391.8	13.32	5.26	22431	
MEPM-A15D	10/1/2009	14:37	YSI 650 MDS	Solinst 101	10.85	2.89	400	13.38	5.61	21760	
MEPM-A15D	10/2/2009	10:43	YSI 650 MDS	Solinst 101	10.86	2.55	418.2	13.44	5.83	23295	
MEPM-A15D	10/2/2009	14:54	YSI 650 MDS	Solinst 101	10.8	2.64	414.2	13.48	5.37	26957	
MEPM-A15D	10/5/2009	11:38	YSI 650 MDS	Solinst 101	10.82	2.41	488.7	13.86	8.2	26705	
MEPM-A15D	10/5/2009	15:59	YSI 650 MDS	Solinst 101	10.85	4.15	438.9	15.89	6.8	26808	
MEPM-A15D	10/6/2009	9:50	YSI 650 MDS	Solinst 101	10.75	2.43	527.7	13.89	11.68	25996	
MEPM-A15D	10/6/2009	14:50	YSI 650 MDS	Solinst 101	10.62	2.97	562.8	13.94	23.13	28842	
MEPM-A15D	10/6/2009	15:01	YSI 650 MDS	Solinst 101	8.25	5.78	-77.7	13.07	21.36	2660	
MEPM-A15D	10/7/2009	15:36	YSI 650 MDS	Solinst 101	10.87	2.17	582.1	13.98	13.31	31089	
MEPM-A15D	10/8/2009	12:44	YSI 650 MDS	Solinst 101	10.85	3.2	560.1	14.07	16.43	32916	
MEPM-A15D	10/8/2009	15:52	YSI 650 MDS	Solinst 101	10.7	2.72	535.9	14.03	22.87	34120	
MEPM-A15D	10/9/2009	10:50	YSI 650 MDS	Solinst 101	9.6	3.14	465.2	14.19	15.84	28150	
MEPM-A15D	10/9/2009	13:24	YSI 650 MDS	Solinst 101	9.3	3.42	477.4	14.27	16.68	30493	
MEPM-A15D	10/12/2009	11:21	YSI 650 MDS	Solinst 101	10.35	6.43	392.3	14.36	11.03	34964	
MEPM-A15D	10/12/2009	14:32	YSI 650 MDS	Solinst 101	10.21	3.18	486.5	14.46	9.42	35386	
MEPM-A15D	10/13/2009	11:30	YSI 650 MDS	Solinst 101	10.26	3.06	504.9	14.43	11.77	36442	
MEPM-A15D	10/13/2009	14:10	YSI 650 MDS	Solinst 101	10.6	2.99	502.7	14.64	8.42	36598	
MEPM-A15D	10/14/2009	10:59	YSI 650 MDS	Solinst 101	10.7	2.62	520.5	14.43	22.44	33895	
MEPM-A15D	10/14/2009	13:59	YSI 650 MDS	Solinst 101	10.68	2.71	520	14.43	21.68	36696	
MEPM-A15D	10/14/2009	14:31	YSI 650 MDS	Solinst 101	6.85	13.24	199.9	14.54	16.02	60722	
MEPM-A15D	10/14/2009	15:02	YSI 650 MDS	Solinst 101	9.6	NM	NM	NM	NM	NM	
MEPM-A15D	10/14/2009	15:34	YSI 650 MDS	Solinst 101	9.05	6.42	364.7	14.58	14.71	43152	
MEPM-A15D	10/15/2009	10:22	YSI 650 MDS	Solinst 101	10.88	2.73	-186	14.52	19.21	32003	
MEPM-A15D	10/15/2009	10:43	YSI 650 MDS	Solinst 101	5.05	NM	NM	NM	NM	NM	
MEPM-A15D	10/15/2009	11:19	YSI 650 MDS	Solinst 101	8.3	9.73	200.5	14.51	17.43	42522	
MEPM-A15D	10/15/2009	12:21	YSI 650 MDS	Solinst 101	11.57	NM	NM	NM	NM	NM	
MEPM-A15D	10/15/2009	13:26	YSI 650 MDS	Solinst 101	11.2	3.21	472.6	14.61	16.13	32333	
MEPM-A15D	10/15/2009	15:32	YSI 650 MDS	Solinst 101	9.3	7.39	407.1	14.56	17.02	39844	
MEPM-A15S	9/10/2009	11:39	YSI 650 MDS	Solinst 101	10.97	6.08	23.3	15.36	5.59	762	Baseline
MEPM-A15S	9/14/2009	11:05	YSI 650 MDS	Solinst 101	9.82	6.83	-162.1	10.93	0.34	10567	H17, I15, I11, D10

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A15S	9/14/2009	12:15	YSI 650 MDS	Solinst 101	9.15	6.36	-159.1	10.69	0.49	10714	H14, H11, D11, H16
MEPM-A15S	9/14/2009	14:05	YSI 650 MDS	Solinst 101	10.6	6.38	-193.9	10.96	0.8	10518	F14, I13, I10
MEPM-A15S	9/14/2009	16:20	YSI 650 MDS	Solinst 101	10.3	6.63	-178.6	10.58	0.65	10927	I15, F10, F08
MEPM-A15S	9/15/2009	9:40	YSI 650 MDS	Solinst 101	9.9	6.56	-156.2	10.54	0.97	13041	H12, H10, D08D, D02
MEPM-A15S	9/15/2009	11:05	YSI 650 MDS	Solinst 101	9.95	6.4	-148.5	11.06	0.82	12361	H13, F09, D07D, D03
MEPM-A15S	9/15/2009	12:50	YSI 650 MDS	Solinst 101	9.9	6	-141.5	10.62	1.44	13301	D06D, D01, I13
MEPM-A15S	9/15/2009	14:05	YSI 650 MDS	Solinst 101	9.85	5.73	-139.8	11.07	1.07	13193	F06, F13, A04
MEPM-A15S	9/15/2009	15:02	YSI 650 MDS	Solinst 101	10.25	6.22	-124.1	10.91	0.79	12832	H14, F03, F08
MEPM-A15S	9/17/2009	9:25	YSI 650 MDS	Solinst 101	10.11	6.73	-25.9	10.78	0.87	12938	F02, E00, F11, D99
MEPM-A15S	9/17/2009	10:30	YSI 650 MDS	Solinst 101	9.95	NM	NM	NM	NM	NM	E98, C00, F03, F10
MEPM-A15S	9/17/2009	11:35	YSI 650 MDS	Solinst 101	9.55	6.21	36.8	10.73	0.94	16191	D11
MEPM-A15S	9/17/2009	13:50	YSI 650 MDS	Solinst 101	9.61	NM	NM	NM	NM	NM	I17, L20, D10, H10
MEPM-A15S	9/17/2009	15:17	YSI 650 MDS	Solinst 101	9.85	6.37	16.7	11.1	0.38	14501	H17, K22, I14
MEPM-A15S	9/17/2009	16:00	YSI 650 MDS	Solinst 101	9	NM	NM	NM	NM	NM	K22, H11
MEPM-A15S	9/18/2009	9:00	YSI 650 MDS	Solinst 101	10.1	7	15	11.19	1.33	11950	I11, F14
MEPM-A15S	9/18/2009	9:53	YSI 650 MDS	Solinst 101	10.19	NM	NM	NM	NM	NM	F17, K20, F15
MEPM-A15S	9/18/2009	10:35	YSI 650 MDS	Solinst 101	10.5	6.33	27.4	11.54	1.21	10888	I13, J20, H15, F19
MEPM-A15S	9/18/2009	11:10	YSI 650 MDS	Solinst 101	10.45	NM	NM	NM	NM	NM	H15, F19, H13
MEPM-A15S	9/18/2009	11:30	YSI 650 MDS	Solinst 101	1.1	NM	NM	NM	NM	NM	H13, H12
MEPM-A15S	9/18/2009	13:25	YSI 650 MDS	Solinst 101	10.3	6	152.2	12.25	1.84	12725	H19, H12, J15
MEPM-A15S	9/21/2009	9:16	YSI 650 MDS	Solinst 101	10.99	6.65	29.1	11.67	1.27	14455	H13, H16, H21
MEPM-A15S	9/21/2009	11:00	YSI 650 MDS	Solinst 101	10.61	NM	NM	NM	NM	NM	H12
MEPM-A15S	9/21/2009	11:23	YSI 650 MDS	Solinst 101	10.55	5.04	26.2	12.56	1.04	13161	H12, F21, I21, J23
MEPM-A15S	9/21/2009	11:55	YSI 650 MDS	Solinst 101	10.5	NM	NM	NM	NM	NM	F13, J20, I21, J23
MEPM-A15S	9/21/2009	12:55	YSI 650 MDS	Solinst 101	10.42	5.53	-27.6	12.95	1.32	12471	F14, I16, H22, K22
MEPM-A15S	9/21/2009	14:12	YSI 650 MDS	Solinst 101	10.7	NM	NM	NM	NM	NM	H14, I16, I22
MEPM-A15S	9/22/2009	9:23	YSI 650 MDS	Solinst 101	10.95	NM	NM	NM	NM	NM	I21, K20, H13, J15
MEPM-A15S	9/22/2009	10:28	YSI 650 MDS	Solinst 101	10.8	6.62	-179.9	12.31	0.84	14476	I22, I15, H13
MEPM-A15S	9/22/2009	11:40	YSI 650 MDS	Solinst 101	10.85	NM	NM	NM	NM	NM	L22, I13
MEPM-A15S	9/22/2009	12:21	YSI 650 MDS	Solinst 101	10.55	7.16	-207.2	12.03	1.02	12947	H22, H12, H15
MEPM-A15S	9/22/2009	14:07	YSI 650 MDS	Solinst 101	10.05	NM	NM	NM	NM	NM	H21, J23, I11, F15
MEPM-A15S	9/22/2009	15:06	YSI 650 MDS	Solinst 101	9.39	6.39	113.4	11.45	1.44	18987	J20, I10, D11
MEPM-A15S	9/22/2009	16:08	YSI 650 MDS	Solinst 101	9.33	NM	NM	NM	NM	NM	F21, F17

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A15S	9/23/2009	9:40	YSI 650 MDS	Solinst 101	9.95	6.44	-135.9	11.52	0.83	23936	F11, D09, H17, I19
MEPM-A15S	9/23/2009	11:28	YSI 650 MDS	Solinst 101	9.45	6.18	-64.2	11.61	1.5	29197	F10, D08D, I14, H19
MEPM-A15S	9/23/2009	13:42	YSI 650 MDS	Solinst 101	9.85	6.38	-129.4	11.59	3.4	24309	F09, D07D, H11, F19
MEPM-A15S	9/23/2009	14:40	YSI 650 MDS	Solinst 101	9.14	NM	NM	NM	NM	NM	F08, D10, I17
MEPM-A15S	9/23/2009	15:17	YSI 650 MDS	Solinst 101	8.42	5.29	-9.7	11.76	3.99	29191	F08, D10, H10, I13
MEPM-A15S	9/28/2009	10:30	YSI 650 MDS	Solinst 101	10.66	NM	NM	NM	NM	NM	D09, D11
MEPM-A15S	9/28/2009	11:35	YSI 650 MDS	Solinst 101	10.05	6.49	-81.7	12.48	1.41	25185	E00, B03
MEPM-A15S	9/28/2009	12:54	YSI 650 MDS	Solinst 101	10.02	NM	NM	NM	NM	NM	D10, F11, F06
MEPM-A15S	9/28/2009	13:29	YSI 650 MDS	Solinst 101	9.65	6.6	-97.5	12.41	2.56	27144	D10, F11, F01, F06
MEPM-A15S	9/28/2009	14:25	YSI 650 MDS	Solinst 101	9.4	NM	NM	NM	NM	NM	
MEPM-A15S	9/28/2009	15:28	YSI 650 MDS	Solinst 101	9.68	6.35	-65.4	12.5	3.57	28002	
MEPM-A15S	9/29/2009	10:25	YSI 650 MDS	Solinst 101	10.6	5.81	29.9	12.7	3.76	31894	
MEPM-A15S	9/29/2009	15:27	YSI 650 MDS	Solinst 101	10.32	5.68	53.2	12.94	3.83	23039	
MEPM-A15S	9/30/2009	11:40	YSI 650 MDS	Solinst 101	10.65	5.24	30	13.11	4.26	24332	
MEPM-A15S	9/30/2009	15:50	YSI 650 MDS	Solinst 101	10.75	5.55	8.8	12.98	3.87	23966	
MEPM-A15S	10/1/2009	9:52	YSI 650 MDS	Solinst 101	11.05	4.9	73	13.09	4.16	26987	
MEPM-A15S	10/1/2009	14:39	YSI 650 MDS	Solinst 101	10.95	5.51	318	13.04	5.17	26049	
MEPM-A15S	10/2/2009	10:45	YSI 650 MDS	Solinst 101	11.1	4.48	146.1	13.17	6.24	27320	
MEPM-A15S	10/2/2009	14:56	YSI 650 MDS	Solinst 101	10.9	5.21	76.4	13.22	4.47	31805	
MEPM-A15S	10/5/2009	11:36	YSI 650 MDS	Solinst 101	10.95	10.03	-249.2	13.61	3.48	30414	
MEPM-A15S	10/5/2009	15:57	YSI 650 MDS	Solinst 101	10.8	9.56	-292.5	13.67	2.15	24280	
MEPM-A15S	10/6/2009	9:52	YSI 650 MDS	Solinst 101	10.8	4.86	46.9	13.63	10	28626	
MEPM-A15S	10/6/2009	14:48	YSI 650 MDS	Solinst 101	10.71	9.89	-245.9	13.62	4.8	29270	
MEPM-A15S	10/6/2009	15:00	YSI 650 MDS	Solinst 101	8.26	5.33	-30.6	14.09	26.84	3948	
MEPM-A15S	10/7/2009	15:33	YSI 650 MDS	Solinst 101	11	9.9	-227.5	13.68	1.52	33200	
MEPM-A15S	10/8/2009	12:42	YSI 650 MDS	Solinst 101	10.99	9.88	-204.3	13.74	2.06	36278	
MEPM-A15S	10/8/2009	15:49	YSI 650 MDS	Solinst 101	10.8	8.52	-200.6	13.74	2.64	32155	
MEPM-A15S	10/9/2009	10:52	YSI 650 MDS	Solinst 101	9.72	3.79	195	13.98	20.92	35976	
MEPM-A15S	10/9/2009	13:25	YSI 650 MDS	Solinst 101	9.4	4.04	194.7	13.75	15.37	40334	
MEPM-A15S	10/12/2009	11:20	YSI 650 MDS	Solinst 101	10.52	10.07	-153.3	14.15	7.3	53683	
MEPM-A15S	10/12/2009	14:33	YSI 650 MDS	Solinst 101	10.45	3.58	298.9	14.28	14.01	50123	
MEPM-A15S	10/13/2009	11:31	YSI 650 MDS	Solinst 101	10.55	3.7	210.3	14.1	12.67	47140	
MEPM-A15S	10/13/2009	14:11	YSI 650 MDS	Solinst 101	10.8	3.29	256.1	14.37	13.39	42174	

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
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Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A15S	10/14/2009	11:01	YSI 650 MDS	Solinst 101	10.87	4.75	18.2	14.16	5.18	36996	
MEPM-A15S	10/14/2009	14:02	YSI 650 MDS	Solinst 101	10.71	5.2	-23.8	14.18	5.87	37757	
MEPM-A15S	10/14/2009	14:27	YSI 650 MDS	Solinst 101	6.48	5.6	-10.6	14.29	1.8	54003	
MEPM-A15S	10/14/2009	14:59	YSI 650 MDS	Solinst 101	9.15	NM	NM	NM	NM	NM	
MEPM-A15S	10/14/2009	15:31	YSI 650 MDS	Solinst 101	9.25	5.81	-42.7	14.3	2.9	28642	
MEPM-A15S	10/15/2009	10:24	YSI 650 MDS	Solinst 101	10.91	5.27	70	14.34	6.93	29961	
MEPM-A15S	10/15/2009	10:45	YSI 650 MDS	Solinst 101	3.45	NM	NM	NM	NM	NM	
MEPM-A15S	10/15/2009	11:22	YSI 650 MDS	Solinst 101	7.75	6.57	246	14.86	15.25	20177	
MEPM-A15S	10/15/2009	12:20	YSI 650 MDS	Solinst 101	11.71	NM	NM	NM	NM	NM	
MEPM-A15S	10/15/2009	13:28	YSI 650 MDS	Solinst 101	11.25	5.04	259.4	14.72	6.32	35698	
MEPM-A15S	10/15/2009	15:35	YSI 650 MDS	Solinst 101	9.25	6.54	327.4	14.86	4.25	46748	
MEPM-A16	9/10/2009	11:32	YSI 650 MDS	Solinst 101	11.15	5.88	-15.8	15.22	2.6	2604	Baseline
MEPM-A16	9/10/2009	14:50	YSI 650 MDS	Solinst 101	10.58	NM	NM	NM	NM	NM	K22, J20, H19, H22
MEPM-A16	9/10/2009	15:20	YSI 650 MDS	Solinst 101	NM	6.71	14.6	15.6	0.59	1639	K22, J20, H19, H22
MEPM-A16	9/10/2009	15:30	YSI 650 MDS	Solinst 101	10.95	NM	NM	NM	NM	NM	K22, J20, H19, H22
MEPM-A16	9/11/2009	11:00	YSI 650 MDS	Solinst 101	10.09	NM	NM	NM	NM	NM	F16, I19, I22, K20
MEPM-A16	9/11/2009	11:25	YSI 650 MDS	Solinst 101	NM	6.76	-74.9	15.04	1.73	3086	K20
MEPM-A16	9/11/2009	13:05	YSI 650 MDS	Solinst 101	NM	6	-37.5	15.68	1.4	3141	J15, I17, F17, F15
MEPM-A16	9/11/2009	13:20	YSI 650 MDS	Solinst 101	8.87	NM	NM	NM	NM	NM	J15, I17, F17, F15
MEPM-A16	9/11/2009	14:30	YSI 650 MDS	Solinst 101	9.1	NM	NM	NM	NM	NM	I14, I16, H15, F13
MEPM-A16	9/11/2009	14:35	YSI 650 MDS	Solinst 101	NM	6.33	-6.5	15	2.11	3302	I14, I16, H15, F13
MEPM-A16	9/14/2009	10:50	YSI 650 MDS	Solinst 101	10.5	7.83	-96.6	12.73	0.48	11738	H17, D10
MEPM-A16	9/14/2009	12:10	YSI 650 MDS	Solinst 101	10.19	9.91	56.1	12.04	0.46	29490	H16, H11, D11, H14
MEPM-A16	9/14/2009	14:00	YSI 650 MDS	Solinst 101	10.6	9.97	58.7	12.41	0.87	20308	F14, I13
MEPM-A16	9/14/2009	16:15	YSI 650 MDS	Solinst 101	10.82	9.22	106.5	12.64	0.89	16745	F10
MEPM-A16	9/17/2009	14:07	YSI 650 MDS	Solinst 101	9.75	NM	NM	NM	NM	NM	I17, L20, D10, H10
MEPM-A16	9/17/2009	15:07	YSI 650 MDS	Solinst 101	9.5	5.92	119.2	11.82	1.03	12680	H17, K22, I14
MEPM-A16	9/17/2009	16:08	YSI 650 MDS	Solinst 101	10.4	NM	NM	NM	NM	NM	K22, H11
MEPM-A16	9/18/2009	9:12	YSI 650 MDS	Solinst 101	10.65	6.28	83	11.77	0.82	11877	I11, F14, F17, K20
MEPM-A16	9/18/2009	10:45	YSI 650 MDS	Solinst 101	10.1	5.87	136.2	11.7	1.24	13183	I13, F19, J20, H15
MEPM-A16	9/18/2009	13:35	YSI 650 MDS	Solinst 101	9.99	5.76	174.5	11.46	0.81	15931	H19, H12, J15
MEPM-A16	9/18/2009	14:12	YSI 650 MDS	Solinst 101	8.72	NM	NM	NM	NM	NM	J15, I16, L22
MEPM-A16	9/18/2009	14:55	YSI 650 MDS	Solinst 101	9.21	5.42	232.1	11.52	1.34	16603	I16, F21, I19, F16

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A16	9/18/2009	15:30	YSI 650 MDS	Solinst 101	9.45	NM	NM	NM	NM	NM	
MEPM-A16	9/21/2009	10:05	YSI 650 MDS	Solinst 101	10.4	12.98	123	13.45	1.09	42405	I13, H16, H21, J22
MEPM-A16	9/21/2009	11:30	YSI 650 MDS	Solinst 101	10.68	12.58	209.4	13.4	0.75	49302	F21, I21, J23
MEPM-A16	9/21/2009	12:02	YSI 650 MDS	Solinst 101	10.45	NM	NM	NM	NM	NM	F13, J20, I21, J23
MEPM-A16	9/21/2009	13:02	YSI 650 MDS	Solinst 101	9.8	12.86	265.7	12.87	0.68	61541	F14, I16, H22, K22
MEPM-A16	9/21/2009	14:20	YSI 650 MDS	Solinst 101	9.4	NM	NM	NM	NM	NM	H14, I16, I22, L20
MEPM-A16	9/22/2009	9:20	YSI 650 MDS	Solinst 101	9.81	NM	NM	NM	NM	NM	I21, K20, H13, J15
MEPM-A16	9/22/2009	10:38	YSI 650 MDS	Solinst 101	10.25	13.6	182.5	13.41	0.72	69284	I22, I15, H13
MEPM-A16	9/22/2009	12:31	YSI 650 MDS	Solinst 101	10.65	13.64	151.6	13.64	1	65004	H22, J22, H12, H15
MEPM-A16	9/22/2009	14:10	YSI 650 MDS	Solinst 101	10.49	NM	NM	NM	NM	NM	
MEPM-A16	9/22/2009	15:13	YSI 650 MDS	Solinst 101	10.05	13.63	174.4	13.48	1.5	61829	
MEPM-A16	9/22/2009	16:12	YSI 650 MDS	Solinst 101	9.86	NM	NM	NM	NM	NM	F21, F17
MEPM-A16	9/23/2009	9:48	YSI 650 MDS	Solinst 101	9.9	13.58	92.3	14.74	0.63	40325	F11, D09, H17, I19
MEPM-A16	9/23/2009	11:36	YSI 650 MDS	Solinst 101	10.2	14	261.9	14.82	0.2	102663	F10, D08D, I14, H19
MEPM-A16	9/23/2009	13:49	YSI 650 MDS	Solinst 101	10.9	13.79	292.7	15.4	0.8	125097	F09, D07D, H11, F19
MEPM-A16	9/23/2009	14:44	YSI 650 MDS	Solinst 101	10.4	NM	NM	NM	NM	NM	F08, D10
MEPM-A16	9/23/2009	15:24	YSI 650 MDS	Solinst 101	10.57	13.75	306.9	15.18	0.97	137356	F08, D10, H10, I13
MEPM-A16	9/29/2009	10:29	YSI 650 MDS	Solinst 101	11.25	13.82	83.4	14.57	7.24	42548	
MEPM-A16	9/29/2009	10:43	YSI 650 MDS	Solinst 101	NM					42548	
MEPM-A16	9/29/2009	15:32	YSI 650 MDS	Solinst 101	11.15	12.29	-32.1	14.54	5.98	46800	
MEPM-A16	9/30/2009	11:44	YSI 650 MDS	Solinst 101	9.89	11.44	-245	14.29	6	36034	
MEPM-A16	9/30/2009	15:53	YSI 650 MDS	Solinst 101	9.6	12.65	2.5	13.76	5.07	59840	
MEPM-A16	10/1/2009	9:55	YSI 650 MDS	Solinst 101	10.98	11.34	202.8	14.23	2.21	119553	
MEPM-A16	10/1/2009	14:42	YSI 650 MDS	Solinst 101	11	12.82	274.3	12.56	2.55	139815	
MEPM-A16	10/2/2009	10:51	YSI 650 MDS	Solinst 101	10.57	9.92	-350.5	14.1	3.66	17163	
MEPM-A16	10/2/2009	14:58	YSI 650 MDS	Solinst 101	9.78	12.41	222.8	15	3.98	199546	
MEPM-A16	10/5/2009	11:32	YSI 650 MDS	Solinst 101	10.25	13.25	206.9	14.93	7.91	106668	
MEPM-A16	10/5/2009	15:54	YSI 650 MDS	Solinst 101	9.88	13.24	160.8	14.81	11.39	76129	
MEPM-A16	10/6/2009	9:54	YSI 650 MDS	Solinst 101	10	11.32	262.7	14.59	9.6	148653	
MEPM-A16	10/6/2009	14:43	YSI 650 MDS	Solinst 101	10.52	12.71	302.2	14.9	8.04	150644	
MEPM-A16	10/7/2009	15:30	YSI 650 MDS	Solinst 101	10.72	14	334.8	15.04	18.3	99077	
MEPM-A16	10/8/2009	12:40	YSI 650 MDS	Solinst 101	10.45	12.73	262.8	15.17	16.25	144143	
MEPM-A16	10/8/2009	15:44	YSI 650 MDS	Solinst 101	10.35	13.43	229.6	15.07	18.71	124524	

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A16	10/9/2009	13:27	YSI 650 MDS	Solinst 101	10.9	9.95	102.2	15.23	11.79	96861	
MEPM-A16	10/12/2009	11:17	YSI 650 MDS	Solinst 101	11	8.43	-36	14.94	5.53	39490	
MEPM-A16	10/12/2009	14:35	YSI 650 MDS	Solinst 101	11	7.13	-159.3	14.9	5.84	87696	
MEPM-A16	10/13/2009	11:33	YSI 650 MDS	Solinst 101	10.98	6.78	-185.3	14.85	6.35	74723	
MEPM-A16	10/13/2009	14:13	YSI 650 MDS	Solinst 101	10.6	6.49	-141.1	11.81	6.72	74155	
MEPM-A16	10/14/2009	11:05	YSI 650 MDS	Solinst 101	10.58	13.8	138.7	14.77	19.6	75274	
MEPM-A16	10/14/2009	14:09	YSI 650 MDS	Solinst 101	10.4	13.88	210.3	14.83	26.75	50477	
MEPM-A16	10/15/2009	10:29	YSI 650 MDS	Solinst 101	10.85	14	158.9	14.92	21.1	57274	
MEPM-A16	10/15/2009	12:25	YSI 650 MDS	Solinst 101	10.5	NM	NM	NM	NM	NM	
MEPM-A16	10/15/2009	13:35	YSI 650 MDS	Solinst 101	8.37	14	258.7	14.52	16	88943	
MEPM-A16	10/15/2009	13:52	YSI 650 MDS	Solinst 101	4.6	NM	NM	NM	NM	NM	
MEPM-A16	10/15/2009	14:54	YSI 650 MDS	Solinst 101	11.5	14	29	14.83	8.6	66159	
MEPM-A17	9/10/2009	11:11	YSI 650 MDS	Solinst 101	12.2	6.11	25.8	15.86	4.68	429	Baseline
MEPM-A17	9/10/2009	14:35	YSI 650 MDS	Solinst 101	12.13	NM	NM	NM	NM	NM	K20, J20, H19, H22
MEPM-A17	9/10/2009	15:05	YSI 650 MDS	Solinst 101	NM	6.03	55.9	17.46	0.11	407	K20, J20, H19, H22
MEPM-A17	9/10/2009	15:25	YSI 650 MDS	Solinst 101	12.05	NM	NM	NM	NM	NM	K20, J20, H19, H22
MEPM-A17	9/10/2009	16:40	YSI 650 MDS	Solinst 101	12.11	NM	NM	NM	NM	NM	L22, F21, J22, H21
MEPM-A17	9/10/2009	17:00	YSI 650 MDS	Solinst 101	12	6.04	158.8	15.34	1.4	660	L22, F21, J22, H21
MEPM-A17	9/11/2009	9:27	YSI 650 MDS	Solinst 101	12.18	NM	NM	NM	NM	NM	F19, J23, L20, I21
MEPM-A17	9/11/2009	10:08	YSI 650 MDS	Solinst 101	12.14	NM	NM	NM	NM	NM	F19, J23, L20, I21
MEPM-A17	9/11/2009	10:25	YSI 650 MDS	Solinst 101	NM	5.95	60	15.04	0.95	804	F16, I19, I22
MEPM-A17	9/11/2009	10:57	YSI 650 MDS	Solinst 101	12.1	NM	NM	NM	NM	NM	F16, I19, I22, K20
MEPM-A17	9/11/2009	11:15	YSI 650 MDS	Solinst 101	NM	6.07	104.2	15.53	2.66	762	I19, I22, K20
MEPM-A17	9/11/2009	12:45	YSI 650 MDS	Solinst 101	12.15	NM	NM	NM	NM	NM	J15, I17
MEPM-A17	9/11/2009	13:00	YSI 650 MDS	Solinst 101	NM	5.76	42	15.89	2.67	688	J15, I17, F17
MEPM-A17	9/11/2009	13:15	YSI 650 MDS	Solinst 101	12.15	NM	NM	NM	NM	NM	J15, I17, F17, F15
MEPM-A17	9/18/2009	9:25	YSI 650 MDS	Solinst 101	12.2	5.59	167	11.52	1.16	23657	I11, F14, F17, K20
MEPM-A17	9/18/2009	10:55	YSI 650 MDS	Solinst 101	12.1	5.52	190.1	11.66	1.29	23594	I13, H13, F19, H15
MEPM-A17	9/18/2009	13:45	YSI 650 MDS	Solinst 101	12.15	5.47	206.3	11.42	1.42	23914	H12, J15, J16, L20
MEPM-A17	9/18/2009	14:17	YSI 650 MDS	Solinst 101	12.15	NM	NM	NM	NM	NM	J15, I16, L22
MEPM-A17	9/18/2009	15:03	YSI 650 MDS	Solinst 101	12.1	5.48	226.4	11.69	1.5	22450	F16, I19, F21, I16
MEPM-A17	9/18/2009	15:32	YSI 650 MDS	Solinst 101	12.1	NM	NM	NM	NM	NM	
MEPM-A17	9/21/2009	10:10	YSI 650 MDS	Solinst 101	12.2	5.48	147	11.7	1.57	23228	I13, H16, H21, J22

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A17	9/21/2009	11:37	YSI 650 MDS	Solinst 101	12.25	5.25	160.8	11.85	1.68	24489	F13, J20, I21, J23
MEPM-A17	9/21/2009	12:05	YSI 650 MDS	Solinst 101	12.25	NM	NM	NM	NM	NM	F13, J20, J23, F21
MEPM-A17	9/21/2009	13:10	YSI 650 MDS	Solinst 101	12.15	5.22	164.5	11.7	1.42	24090	F14, I16, H22, K22
MEPM-A17	9/21/2009	14:25	YSI 650 MDS	Solinst 101	12.3	NM	NM	NM	NM	NM	H14, I22, L20
MEPM-A17	9/22/2009	10:46	YSI 650 MDS	Solinst 101	12.12	5.5	-4.3	11.76	1.25	24539	J22, H13, I15
MEPM-A17	9/22/2009	12:41	YSI 650 MDS	Solinst 101	12.15	5.37	39.1	11.62	1.41	25928	H22, J22, H12, H15
MEPM-A17	9/22/2009	14:15	YSI 650 MDS	Solinst 101	12.15	NM	NM	NM	NM	NM	
MEPM-A17	9/22/2009	15:19	YSI 650 MDS	Solinst 101	12.16	5.35	11.4	11.7	3.04	24900	
MEPM-A17	9/22/2009	16:15	YSI 650 MDS	Solinst 101	12.18	NM	NM	NM	NM	NM	F21, F17
MEPM-A17	9/23/2009	9:57	YSI 650 MDS	Solinst 101	12.3	5.54	-17.8	12	1.46	24243	F11, D09, H17, I19
MEPM-A17	9/23/2009	11:42	YSI 650 MDS	Solinst 101	12.22	5.43	-3.2	11.98	1.31	24111	F10, D08D, I14, H19
MEPM-A17	9/23/2009	13:57	YSI 650 MDS	Solinst 101	12.2	5.42	-9.4	12.24	2.25	23713	F09, D07D, H11, F19
MEPM-A17	9/23/2009	14:47	YSI 650 MDS	Solinst 101	12.21	NM	NM	NM	NM	NM	F08, D10, H16
MEPM-A17	9/23/2009	15:31	YSI 650 MDS	Solinst 101	12.2	5.32	4	11.87	2.84	24786	F08, D10, H10, I13
MEPM-A17	9/29/2009	10:39	YSI 650 MDS	Solinst 101	12.36	5.66	34.3	11.99	3.89	23171	
MEPM-A17	9/29/2009	15:38	YSI 650 MDS	Solinst 101	12.36	5.38	73.3	11.76	4.39	18409	
MEPM-A17	9/30/2009	11:48	YSI 650 MDS	Solinst 101	12.32	5.08	83.3	11.86	4.52	21396	
MEPM-A17	9/30/2009	15:59	YSI 650 MDS	Solinst 101	12.29	4.94	94	11.79	4.85	21773	
MEPM-A17	10/1/2009	10:00	YSI 650 MDS	Solinst 101	12.2	4.67	97.1	11.8	5.43	22830	
MEPM-A17	10/1/2009	14:48	YSI 650 MDS	Solinst 101	12.25	4.57	144.2	11.73	6.03	24182	
MEPM-A17	10/2/2009	10:56	YSI 650 MDS	Solinst 101	12.3	4.99	86	11.81	4.54	23628	
MEPM-A17	10/2/2009	15:03	YSI 650 MDS	Solinst 101	12.2	4.66	184.3	11.89	4.91	25981	
MEPM-A17	10/5/2009	11:26	YSI 650 MDS	Solinst 101	12.3	5.6	-11.7	12.14	3.71	22616	
MEPM-A17	10/5/2009	15:49	YSI 650 MDS	Solinst 101	12.23	5.84	-46.9	12.09	3	23317	
MEPM-A17	10/6/2009	9:59	YSI 650 MDS	Solinst 101	12.25	4.65	24	12.01	6.32	22415	
MEPM-A17	10/6/2009	14:38	YSI 650 MDS	Solinst 101	12.25	5.35	-31.7	11.78	7.7	27737	
MEPM-A17	10/7/2009	15:22	YSI 650 MDS	Solinst 101	12.25	5.76	-23	12.03	1.85	23659	
MEPM-A17	10/8/2009	12:38	YSI 650 MDS	Solinst 101	12.2	4.78	43.8	11.64	1.66	30560	
MEPM-A17	10/8/2009	15:42	YSI 650 MDS	Solinst 101	12.15	5.17	30.9	11.93	2.08	25200	
MEPM-A17	10/9/2009	10:58	YSI 650 MDS	Solinst 101	12.21	10.68	-142.2	12.12	20.47	21196	
MEPM-A17	10/9/2009	13:29	YSI 650 MDS	Solinst 101	12.21	9.94	-139.6	12.07	12.44	20996	
MEPM-A17	10/12/2009	11:16	YSI 650 MDS	Solinst 101	12.18	3.38	154.4	12.06	7.11	22273	
MEPM-A17	10/12/2009	14:37	YSI 650 MDS	Solinst 101	12.17	9.77	-114.6	11.9	9.72	25128	

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A17	10/13/2009	11:36	YSI 650 MDS	Solinst 101	10.12	10.29	-91.5	11.95	9.03	27521	
MEPM-A17	10/13/2009	14:16	YSI 650 MDS	Solinst 101	12.04	11.55	-130.8	12.34	13.11	12756	
MEPM-A17	10/14/2009	11:10	YSI 650 MDS	Solinst 101	12.05	4.39	99.4	12.1	3.19	23847	
MEPM-A17	10/14/2009	14:16	YSI 650 MDS	Solinst 101	12.05	4.86	54.2	12.15	3.35	24198	
MEPM-A17	10/15/2009	10:34	YSI 650 MDS	Solinst 101	12.1	2.48	470.2	13.98	4.5	369	
MEPM-A17	10/15/2009	13:42	YSI 650 MDS	Solinst 101	11.9	5.22	74.1	11.79	3.8	21961	
MEPM-A17	10/15/2009	15:42	YSI 650 MDS	Solinst 101	11.98	5.28	71.1	12.17	3.74	20207	
MEPM-A18	9/10/2009	11:20	YSI 650 MDS	Solinst 101	11.15	3.41	331.2	15.89	-73.1	9743	Baseline
MEPM-A18	9/10/2009	14:45	YSI 650 MDS	Solinst 101	9.73	NM	NM	NM	NM	NM	K22, J20, H19, H22
MEPM-A18	9/10/2009	15:00	YSI 650 MDS	Solinst 101	NM	3.26	298	15.25	0.4	9846	K22, J20, H19, H22
MEPM-A18	9/10/2009	15:22	YSI 650 MDS	Solinst 101	10.6	NM	NM	NM	NM	NM	K22, J20, H19, H22
MEPM-A18	9/10/2009	16:35	YSI 650 MDS	Solinst 101	9.4	NM	NM	NM	NM	NM	L22, F21, J22, H21
MEPM-A18	9/10/2009	17:04	YSI 650 MDS	Solinst 101	9.45	3.83	294.3	14.86	-21.66	10025	L22, F21, J22, H21
MEPM-A18	9/11/2009	9:25	YSI 650 MDS	Solinst 101	9.95	NM	NM	NM	NM	NM	F19, J23, L20, I21
MEPM-A18	9/11/2009	10:05	YSI 650 MDS	Solinst 101	9.17	NM	NM	NM	NM	NM	F19, J23, L20, I21
MEPM-A18	9/11/2009	10:20	YSI 650 MDS	Solinst 101	NM	3.15	315.3	15.07	-0.63	9568	F16, I19, I22
MEPM-A18	9/11/2009	10:55	YSI 650 MDS	Solinst 101	9.11	NM	NM	NM	NM	NM	F16, I19, I22, K20
MEPM-A18	9/11/2009	11:10	YSI 650 MDS	Solinst 101	NM	3.23	280.6	15.16	0.4	9593	F16, I19, I22, K20
MEPM-A18	9/17/2009	14:05	YSI 650 MDS	Solinst 101	10.05	NM	NM	NM	NM	NM	I17, L20, D10, H10
MEPM-A18	9/17/2009	15:05	YSI 650 MDS	Solinst 101	10.05	3.74	311.6	11.8	1.36	22053	H17, K22, I14
MEPM-A18	9/17/2009	16:10	YSI 650 MDS	Solinst 101	9.85	NM	NM	NM	NM	NM	K22, H11
MEPM-A18	9/18/2009	9:15	YSI 650 MDS	Solinst 101	10.1	4.13	284.8	10.53	1.6	32383	I11, F14, F17, K22
MEPM-A18	9/18/2009	10:50	YSI 650 MDS	Solinst 101	10.3	4.06	293.4	10.66	0.99	19629	I13, F19, J20, H15
MEPM-A18	9/18/2009	13:40	YSI 650 MDS	Solinst 101	10.3	4.14	301.5	10.65	1.24	16800	H12, J15, L22
MEPM-A18	9/18/2009	14:15	YSI 650 MDS	Solinst 101	9.65	NM	NM	NM	NM	NM	J15, F16, L22
MEPM-A18	9/18/2009	15:00	YSI 650 MDS	Solinst 101	9.9	3.91	345.6	10.98	1.15	15745	F16, I19, F21
MEPM-A18	9/18/2009	15:30	YSI 650 MDS	Solinst 101	9.8	NM	NM	NM	NM	NM	
MEPM-A18	9/21/2009	10:08	YSI 650 MDS	Solinst 101	9.3	3.3	488.8	11.85	1.52	15688	I13, H16, H21, J22
MEPM-A18	9/21/2009	11:32	YSI 650 MDS	Solinst 101	9.5	2.63	594.4	11.88	1.91	17924	F13, F21, I21, J23
MEPM-A18	9/21/2009	12:04	YSI 650 MDS	Solinst 101	9.25	NM	NM	NM	NM	NM	F13, J20, I21, J23
MEPM-A18	9/21/2009	13:06	YSI 650 MDS	Solinst 101	9.7	1.38	646.3	11.83	1.33	19266	F14, I16, H22, K22

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A18	9/21/2009	14:21	YSI 650 MDS	Solinst 101	9.3	NM	NM	NM	NM	NM	H14, I16, I22, L20
MEPM-A18	9/22/2009	9:30	YSI 650 MDS	Solinst 101	8.7	NM	NM	NM	NM	NM	I21, K20, H13, J15
MEPM-A18	9/22/2009	10:42	YSI 650 MDS	Solinst 101	10.1	2.58	433.9	11.31	1.23	29548	I22, I15, H13
MEPM-A18	9/22/2009	11:00	YSI 650 MDS	Solinst 101	9.8	NM	NM	NM	NM	NM	
MEPM-A18	9/22/2009	12:37	YSI 650 MDS	Solinst 101	9.75	2.96	402.3	11.83	2.01	26124	H22, J22, H12, H15
MEPM-A18	9/22/2009	14:12	YSI 650 MDS	Solinst 101	9.25	NM	NM	NM	NM	NM	
MEPM-A18	9/22/2009	15:16	YSI 650 MDS	Solinst 101	10.23	3.01	492.5	12.1	2.04	34580	
MEPM-A18	9/22/2009	16:13	YSI 650 MDS	Solinst 101	9.97	NM	NM	NM	NM	NM	F21, F17
MEPM-A18	9/23/2009	9:53	YSI 650 MDS	Solinst 101	10.3	2.7	430	11.65	1.25	27229	F11, D09, H17, I19
MEPM-A18	9/23/2009	11:39	YSI 650 MDS	Solinst 101	10.5	2.69	424.6	11.76	1.28	26170	F10, D08D, I14, H19
MEPM-A18	9/23/2009	13:53	YSI 650 MDS	Solinst 101	10.75	2.65	415	11.9	2.47	21775	F09, D07D, H11, F19
MEPM-A18	9/23/2009	14:45	YSI 650 MDS	Solinst 101	10.57	NM	NM	NM	NM	NM	F08, D10, H16
MEPM-A18	9/23/2009	15:28	YSI 650 MDS	Solinst 101	10.7	2.41	442.4	11.73	2.95	23175	F08, D10, H10, I13
MEPM-A18	9/29/2009	10:36	YSI 650 MDS	Solinst 101	10.8	3.4	354.8	13.19	5.03	29123	
MEPM-A18	9/29/2009	15:35	YSI 650 MDS	Solinst 101	10.89	3.91	-395	13.07	4.69	22517	
MEPM-A18	9/30/2009	11:46	YSI 650 MDS	Solinst 101	10.27	3.31	384.3	13.09	4.9	30200	
MEPM-A18	9/30/2009	15:57	YSI 650 MDS	Solinst 101	9.9	3.28	380.2	13.05	4.26	30988	
MEPM-A18	10/1/2009	9:58	YSI 650 MDS	Solinst 101	10.76	3.27	443.7	13.06	4.52	31715	
MEPM-A18	10/1/2009	14:46	YSI 650 MDS	Solinst 101	10.82	3.09	457.5	13.03	4.22	32188	
MEPM-A18	10/2/2009	10:53	YSI 650 MDS	Solinst 101	9.32	2.69	516.2	12.28	2.99	53610	
MEPM-A18	10/2/2009	15:01	YSI 650 MDS	Solinst 101	9.98	12.88	529.1	12.08	3.87	46771	
MEPM-A18	10/5/2009	11:29	YSI 650 MDS	Solinst 101	9.6	2.53	467.5	13.2	3.54	27130	
MEPM-A18	10/5/2009	15:51	YSI 650 MDS	Solinst 101	9.8	2.63	509.8	12.96	2.39	37555	
MEPM-A18	10/6/2009	9:57	YSI 650 MDS	Solinst 101	9.95	5.83	373.4	13.21	5.07	33914	
MEPM-A18	10/6/2009	14:41	YSI 650 MDS	Solinst 101	10.15	2.29	544.2	13.16	7.68	33078	
MEPM-A18	10/7/2009	15:24	YSI 650 MDS	Solinst 101	9.9	2.41	330.5	13.21	1.71	34180	
MEPM-A18	10/8/2009	12:35	YSI 650 MDS	Solinst 101	7.79	2.51	515.3	13.41	1.88	38557	
MEPM-A18	10/8/2009	15:39	YSI 650 MDS	Solinst 101	7.8	2.55	446.7	13.17	3.07	4534	
MEPM-A18	10/9/2009	11:00	YSI 650 MDS	Solinst 101	11.92	6.04	266.9	13.43	13.1	36313	
MEPM-A18	10/9/2009	13:31	YSI 650 MDS	Solinst 101	10.75	6.51	247.1	13.32	11.63	21395	
MEPM-A18	10/12/2009	11:14	YSI 650 MDS	Solinst 101	10.8	3.07	417	13.86	5.6	4207	
MEPM-A18	10/12/2009	14:39	YSI 650 MDS	Solinst 101	10.86	6.06	269.9	13.61	5.89	46324	
MEPM-A18	10/13/2009	11:37	YSI 650 MDS	Solinst 101	10.82	7.25	214.8	13.94	7.24	49554	

Table 4-7 (cont.)
Area A - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Injection Wells Active
MEPM-A18	10/13/2009	14:17	YSI 650 MDS	Solinst 101	9.47	7.65	243.4	13.94	8	45691	
MEPM-A18	10/14/2009	11:08	YSI 650 MDS	Solinst 101	10.12	3.75	553.6	13.71	3.73	43492	
MEPM-A18	10/14/2009	14:13	YSI 650 MDS	Solinst 101	9.7	2.76	615.9	13.87	4.49	44643	
MEPM-A18	10/15/2009	10:33	YSI 650 MDS	Solinst 101	10.73	2.76	576.4	13.85	4.34	42542	
MEPM-A18	10/15/2009	13:40	YSI 650 MDS	Solinst 101	9.1	2.74	633.7	13.14	7.3	49942	
MEPM-A18	10/15/2009	15:39	YSI 650 MDS	Solinst 101	9.85	2.49	556.3	13.4	4.87	48477	

Table 4-8
Area B - In-Situ Groundwater Parameters
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
ME-B02D	9/29/2009	9:33	YSI 650 MDS	Solinst 101	6.57	4.44	132.6	13.8	2.62	3237
ME-B02D	9/30/2009	9:26	YSI 650 MDS	Solinst 101	7.16	NM	NM	NM	NM	NM
ME-B02D	9/30/2009	10:13	YSI 650 MDS	Solinst 101	6.05	4.36	156.3	156.3	12.48	6700
ME-B02D	9/30/2009	11:10	YSI 650 MDS	Solinst 101	5.64	NM	NM	NM	NM	NM
ME-B02D	9/30/2009	12:11	YSI 650 MDS	Solinst 101	3	4.11	176.5	176.5	12.23	13848
ME-B02D	9/30/2009	13:15	YSI 650 MDS	Solinst 101	4.85	NM	NM	NM	NM	NM
ME-B02D	9/30/2009	14:10	YSI 650 MDS	Solinst 101	4.65	4.07	159.7	159.7	12.43	11344
ME-B02D	9/30/2009	15:12	YSI 650 MDS	Solinst 101	4.93	NM	NM	NM	NM	NM
ME-B02D	9/30/2009	16:19	YSI 650 MDS	Solinst 101	4.9	4.22	160.5	160.5	12.44	10361
ME-B02D	10/2/2009	9:22	YSI 650 MDS	Solinst 101	6.41	NM	NM	NM	NM	NM
ME-B02D	10/2/2009	10:06	YSI 650 MDS	Solinst 101	6.01	4.28	168.3	12.56	4.84	8908
ME-B02D	10/2/2009	11:06	YSI 650 MDS	Solinst 101	3.57	NM	NM	NM	NM	NM
ME-B02D	10/2/2009	12:12	YSI 650 MDS	Solinst 101	3.8	4.05	175.5	12.89	3.5	17322
ME-B02D	10/2/2009	13:21	YSI 650 MDS	Solinst 101	5.33	NM	NM	NM	NM	NM
ME-B02D	10/2/2009	14:09	YSI 650 MDS	Solinst 101	5.2	4.52	106.9	12.81	4.3	12988
ME-B02D	10/2/2009	15:18	YSI 650 MDS	Solinst 101	5.2	NM	NM	NM	NM	NM
ME-B02D	10/5/2009	9:57	YSI 650 MDS	Solinst 101	6.05	4.33	128.7	12.85	4.58	7522
ME-B02D	10/5/2009	11:03	YSI 650 MDS	Solinst 101	4.72	NM	NM	NM	NM	NM
ME-B02D	10/5/2009	12:10	YSI 650 MDS	Solinst 101	4.25	4.39	139.8	12.96	4.28	12253
ME-B02D	10/5/2009	13:12	YSI 650 MDS	Solinst 101	5.62	NM	NM	NM	NM	NM
ME-B02D	10/5/2009	14:09	YSI 650 MDS	Solinst 101	5.27	4.31	173.2	13.19	3.32	10586
ME-B02D	10/5/2009	15:12	YSI 650 MDS	Solinst 101	5.75	NM	NM	NM	NM	NM
ME-B02D	10/5/2009	16:27	YSI 650 MDS	Solinst 101	4.67	4.55	171.3	12.99	1.94	9315
ME-B02D	10/6/2009	13:22	YSI 650 MDS	Solinst 101	6.3	4.41	162.7	12.87	4.04	8981
ME-B02D	10/6/2009	14:19	YSI 650 MDS	Solinst 101	5.78	NM	NM	NM	NM	NM
ME-B02D	10/6/2009	15:21	YSI 650 MDS	Solinst 101	3.67	4.42	165.9	12.69	18.28	14972
ME-B02D	10/7/2009	13:45	YSI 650 MDS	Solinst 101	5	4.31	137.9	12.81	1.93	10673
ME-B02D	10/7/2009	14:45	YSI 650 MDS	Solinst 101	3.92	NM	NM	NM	NM	NM
ME-B02D	10/7/2009	16:01	YSI 650 MDS	Solinst 101	3.98	4.29	175.2	13.09	1.58	13134
ME-B02D	10/7/2009	16:53	YSI 650 MDS	Solinst 101	5.58	NM	NM	NM	NM	NM
ME-B02D	10/8/2009	10:24	YSI 650 MDS	Solinst 101	5.99	4.52	183.2	12.81	2.06	12020
ME-B02D	10/8/2009	11:13	YSI 650 MDS	Solinst 101	5.2	NM	NM	NM	NM	NM

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
ME-B02D	10/8/2009	12:18	YSI 650 MDS	Solinst 101	3.25	3.79	323.4	12.85	0.72	16575
ME-B02D	10/8/2009	13:08	YSI 650 MDS	Solinst 101	3.56	NM	NM	NM	NM	NM
ME-B02D	10/8/2009	14:23	YSI 650 MDS	Solinst 101	4.4	3.67	277.2	13.24	2.51	14259
ME-B02D	10/8/2009	15:32	YSI 650 MDS	Solinst 101	5.36	NM	NM	NM	NM	NM
ME-B02D	10/8/2009	16:16	YSI 650 MDS	Solinst 101	4.65	3.98	279.8	13.08	4.01	13509
ME-B02D	10/9/2009	9:22	YSI 650 MDS	Solinst 101	5.9	4.36	253.2	13.18	3.39	9206
ME-B02D	10/9/2009	10:23	YSI 650 MDS	Solinst 101	5.54	NM	NM	NM	NM	NM
ME-B02D	10/9/2009	11:38	YSI 650 MDS	Solinst 101	3.8	4.31	326.8	12.46	13.49	15456
ME-B02D	10/9/2009	12:38	YSI 650 MDS	Solinst 101	4.57	NM	NM	NM	NM	NM
ME-B02D	10/9/2009	13:40	YSI 650 MDS	Solinst 101	2.6	4.41	362.2	12.97	20.39	14398
ME-B02D	10/12/2009	9:56	YSI 650 MDS	Solinst 101	6.44	3.8	339.4	13.41	2.65	11904
ME-B02D	10/12/2009	10:50	YSI 650 MDS	Solinst 101	4.75	NM	NM	NM	NM	NM
ME-B02D	10/12/2009	12:14	YSI 650 MDS	Solinst 101	3.84	3.83	394	13	7.16	3788
ME-B02D	10/12/2009	13:18	YSI 650 MDS	Solinst 101	4.77	NM	NM	NM	NM	NM
ME-B02D	10/12/2009	14:10	YSI 650 MDS	Solinst 101	4.51	3.2	425.9	13.62	7.4	14973
ME-B02D	10/12/2009	15:13	YSI 650 MDS	Solinst 101	4.35	NM	NM	NM	NM	NM
ME-B02D	10/12/2009	16:14	YSI 650 MDS	Solinst 101	4.16	3.55	445.4	13.97	15.63	14258
ME-B02D	10/13/2009	10:22	YSI 650 MDS	Solinst 101	6.76	3.52	414.9	13.52	12.42	13668
ME-B02D	10/13/2009	11:47	YSI 650 MDS	Solinst 101	5.81	NM	NM	NM	NM	NM
ME-B02D	10/13/2009	12:52	YSI 650 MDS	Solinst 101	6.1	3.23	447	13.56	7.03	13262
ME-B02D	10/13/2009	13:35	YSI 650 MDS	Solinst 101	5.5	NM	NM	NM	NM	NM
ME-B02D	10/13/2009	14:55	YSI 650 MDS	Solinst 101	5.51	3.2	434.7	13.68	10.42	17112
ME-B02D	10/14/2009	9:50	YSI 650 MDS	Solinst 101	5.45	2.63	456.3	13.45	4.64	12910
ME-B02D	10/14/2009	11:17	YSI 650 MDS	Solinst 101	4.48	NM	NM	NM	NM	NM
ME-B02D	10/14/2009	12:11	YSI 650 MDS	Solinst 101	3.25	2.85	457.1	13.6	7172	18937
ME-B02D	10/14/2009	13:07	YSI 650 MDS	Solinst 101	2.85	NM	NM	NM	NM	NM
ME-B02S	9/29/2009	9:30	YSI 650 MDS	Solinst 101	6.9	4.67	104.9	13.53	2.78	8542
ME-B02S	9/30/2009	9:25	YSI 650 MDS	Solinst 101	7.1	NM	NM	NM	NM	NM
ME-B02S	9/30/2009	10:11	YSI 650 MDS	Solinst 101	6.68	4.9	121.4	13.28	5.62	7988
ME-B02S	9/30/2009	11:08	YSI 650 MDS	Solinst 101	5.8	NM	NM	NM	NM	NM
ME-B02S	9/30/2009	12:08	YSI 650 MDS	Solinst 101	4.35	4.32	160.8	12.56	6.96	9184
ME-B02S	9/30/2009	13:17	YSI 650 MDS	Solinst 101	5.19	NM	NM	NM	NM	NM

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
ME-B02S	9/30/2009	14:12	YSI 650 MDS	Solinst 101	4.71	4.28	136.1	12.68	3.62	7381
ME-B02S	9/30/2009	15:11	YSI 650 MDS	Solinst 101	5.4	NM	NM	NM	NM	NM
ME-B02S	9/30/2009	16:16	YSI 650 MDS	Solinst 101	4.7	4.7	96.2	13.32	6.04	7320
ME-B02S	10/2/2009	9:28	YSI 650 MDS	Solinst 101	6.16	NM	NM	NM	NM	NM
ME-B02S	10/2/2009	10:04	YSI 650 MDS	Solinst 101	5.11	5.08	95.2	13.92	5.85	8762
ME-B02S	10/2/2009	11:05	YSI 650 MDS	Solinst 101	4.7	NM	NM	NM	NM	NM
ME-B02S	10/2/2009	12:08	YSI 650 MDS	Solinst 101	4.47	4.47	104	13.64	4.79	11008
ME-B02S	10/2/2009	13:20	YSI 650 MDS	Solinst 101	4.4	NM	NM	NM	NM	NM
ME-B02S	10/2/2009	14:06	YSI 650 MDS	Solinst 101	5.25	5.2	36.4	14.19	5.4	9692
ME-B02S	10/2/2009	15:15	YSI 650 MDS	Solinst 101	3.55	NM	NM	NM	NM	NM
ME-B02S	10/5/2009	9:54	YSI 650 MDS	Solinst 101	6.52	5.37	37.7	13.83	8.18	7465
ME-B02S	10/5/2009	11:00	YSI 650 MDS	Solinst 101	5.84	NM	NM	NM	NM	NM
ME-B02S	10/5/2009	12:09	YSI 650 MDS	Solinst 101	5.32	4.94	81.7	13.33	5.65	9380
ME-B02S	10/5/2009	13:10	YSI 650 MDS	Solinst 101	4.75	NM	NM	NM	NM	NM
ME-B02S	10/5/2009	14:05	YSI 650 MDS	Solinst 101	5.58	5.25	66.1	15.19	7.52	8068
ME-B02S	10/5/2009	15:13	YSI 650 MDS	Solinst 101	5.21	NM	NM	NM	NM	NM
ME-B02S	10/5/2009	16:23	YSI 650 MDS	Solinst 101	4.92	5.95	-2.5	14.29	4.83	7695
ME-B02S	10/6/2009	13:19	YSI 650 MDS	Solinst 101	6.5	5.46	36.3	13.85	11.81	7692
ME-B02S	10/6/2009	14:20	YSI 650 MDS	Solinst 101	5.09	NM	NM	NM	NM	NM
ME-B02S	10/6/2009	15:19	YSI 650 MDS	Solinst 101	5.12	5.62	33.6	13.36	18.68	7648
ME-B02S	10/7/2009	13:43	YSI 650 MDS	Solinst 101	5.49	5	77.2	13.38	5.12	10079
ME-B02S	10/7/2009	14:42	YSI 650 MDS	Solinst 101	3.1	NM	NM	NM	NM	NM
ME-B02S	10/7/2009	15:59	YSI 650 MDS	Solinst 101	3.8	5.37	55.1	14.11	5.91	8783
ME-B02S	10/7/2009	16:52	YSI 650 MDS	Solinst 101	4.9	NM	NM	NM	NM	NM
ME-B02S	10/8/2009	10:22	YSI 650 MDS	Solinst 101	6.17	5.55	130.5	14.14	23.03	9322
ME-B02S	10/8/2009	11:12	YSI 650 MDS	Solinst 101	5.23	NM	NM	NM	NM	NM
ME-B02S	10/8/2009	12:16	YSI 650 MDS	Solinst 101	3.85	5.93	105.2	14.11	15.98	9731
ME-B02S	10/8/2009	13:06	YSI 650 MDS	Solinst 101	4.03	NM	NM	NM	NM	NM
ME-B02S	10/8/2009	14:21	YSI 650 MDS	Solinst 101	4.6	5.05	250.6	13.53	14.83	10727
ME-B02S	10/8/2009	15:31	YSI 650 MDS	Solinst 101	5.47	NM	NM	NM	NM	NM
ME-B02S	10/8/2009	16:14	YSI 650 MDS	Solinst 101	5.05	5.4	312.5	13.75	18.23	10582
ME-B02S	10/9/2009	9:19	YSI 650 MDS	Solinst 101	5.6	6.01	323.5	14.31	27.39	7630

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
ME-B02S	10/9/2009	10:21	YSI 650 MDS	Solinst 101	4.42	NM	NM	NM	NM	NM
ME-B02S	10/9/2009	11:36	YSI 650 MDS	Solinst 101	4.12	4.78	322.6	14.4	11.72	7801
ME-B02S	10/9/2009	12:36	YSI 650 MDS	Solinst 101	4.47	NM	NM	NM	NM	NM
ME-B02S	10/9/2009	13:39	YSI 650 MDS	Solinst 101	2.9	4.88	378.8	14.01	18.21	8606
ME-B02S	10/12/2009	9:52	YSI 650 MDS	Solinst 101	6.38	4.29	479.4	14.74	29.47	10049
ME-B02S	10/12/2009	10:47	YSI 650 MDS	Solinst 101	5.1	NM	NM	NM	NM	NM
ME-B02S	10/12/2009	12:11	YSI 650 MDS	Solinst 101	4.51	5.12	426.2	14.22	18.97	11238
ME-B02S	10/12/2009	13:17	YSI 650 MDS	Solinst 101	5.2	NM	NM	NM	NM	NM
ME-B02S	10/12/2009	14:08	YSI 650 MDS	Solinst 101	5.07	5.62	354.4	14.47	11.66	11154
ME-B02S	10/12/2009	15:12	YSI 650 MDS	Solinst 101	4.32	NM	NM	NM	NM	NM
ME-B02S	10/12/2009	16:13	YSI 650 MDS	Solinst 101	4.65	4.43	428.3	14.48	20.15	10654
ME-B02S	10/13/2009	10:21	YSI 650 MDS	Solinst 101	6.51	5.78	390.4	15.17	20.02	11033
ME-B02S	10/13/2009	11:46	YSI 650 MDS	Solinst 101	4.98	NM	NM	NM	NM	NM
ME-B02S	10/13/2009	12:49	YSI 650 MDS	Solinst 101	5.68	4.46	422.8	15.22	14.78	9918
ME-B02S	10/13/2009	13:32	YSI 650 MDS	Solinst 101	5.46	NM	NM	NM	NM	NM
ME-B02S	10/13/2009	14:54	YSI 650 MDS	Solinst 101	5.51	4.56	414.1	14.95	12.51	9044
ME-B02S	10/14/2009	9:46	YSI 650 MDS	Solinst 101	6.55	4.14	425	15.22	23.1	9950
ME-B02S	10/14/2009	11:16	YSI 650 MDS	Solinst 101	5.3	NM	NM	NM	NM	NM
ME-B02S	10/14/2009	12:09	YSI 650 MDS	Solinst 101	3.7	4.62	435.5	14.69	20.7	10942
ME-B02S	10/14/2009	13:06	YSI 650 MDS	Solinst 101	2.1	NM	NM	NM	NM	NM
ME-B10D	9/29/2009	9:36	YSI 650 MDS	Solinst 101	8.6	3.23	245	12.13	3.28	7513
ME-B10D	9/30/2009	9:31	YSI 650 MDS	Solinst 101	8.5	NM	NM	NM	NM	NM
ME-B10D	9/30/2009	10:20	YSI 650 MDS	Solinst 101	7.11	3.13	258.9	12.02	4.05	6613
ME-B10D	9/30/2009	12:21	YSI 650 MDS	Solinst 101	6.25	3.13	305.2	12.06	4.25	6710
ME-B10D	9/30/2009	13:21	YSI 650 MDS	Solinst 101	7.96	NM	NM	NM	NM	NM
ME-B10D	9/30/2009	14:17	YSI 650 MDS	Solinst 101	5.05	3.08	297.1	11.73	3.88	5264
ME-B10D	9/30/2009	14:37	YSI 650 MDS	Solinst 101	5.25	NM	NM	NM	NM	NM
ME-B10D	9/30/2009	15:13	YSI 650 MDS	Solinst 101	5.15	NM	NM	NM	NM	NM
ME-B10D	9/30/2009	16:24	YSI 650 MDS	Solinst 101	6.7	3.13	299	12.04	3.6	5240
ME-B10D	10/2/2009	9:15	YSI 650 MDS	Solinst 101	8.97	NM	NM	NM	NM	NM
ME-B10D	10/2/2009	10:14	YSI 650 MDS	Solinst 101	8.27	3.13	275.4	11.95	3.51	6767
ME-B10D	10/2/2009	11:11	YSI 650 MDS	Solinst 101	8.2	NM	NM	NM	NM	NM

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
ME-B10D	10/2/2009	12:21	YSI 650 MDS	Solinst 101	7.15	3.22	276.4	12.12	3.57	8196
ME-B10D	10/2/2009	13:25	YSI 650 MDS	Solinst 101	8.3	NM	NM	NM	NM	NM
ME-B10D	10/2/2009	14:18	YSI 650 MDS	Solinst 101	7.5	3.28	233.6	12.24	3.99	8198
ME-B10D	10/2/2009	15:22	YSI 650 MDS	Solinst 101	6.6	NM	NM	NM	NM	NM
ME-B10D	10/5/2009	10:05	YSI 650 MDS	Solinst 101	8.87	7.56	167	12.55	2.45	7733
ME-B10D	10/5/2009	11:02	YSI 650 MDS	Solinst 101	7.64	NM	NM	NM	NM	NM
ME-B10D	10/5/2009	12:17	YSI 650 MDS	Solinst 101	7.1	14	1303	14.99	10.57	154
ME-B10D	10/5/2009	13:17	YSI 650 MDS	Solinst 101	8.2	NM	NM	NM	NM	NM
ME-B10D	10/5/2009	14:19	YSI 650 MDS	Solinst 101	7.79	6.12	124.2	12.13	2.19	7709
ME-B10D	10/5/2009	15:17	YSI 650 MDS	Solinst 101	7.11	NM	NM	NM	NM	NM
ME-B10D	10/5/2009	16:34	YSI 650 MDS	Solinst 101	6.87	7.24	323.6	12.29	1.84	7691
ME-B10D	10/6/2009	14:24	YSI 650 MDS	Solinst 101	8.19	NM	NM	NM	NM	NM
ME-B10D	10/6/2009	15:27	YSI 650 MDS	Solinst 101	7.05	9.66	236.6	12.18	17.71	7630
ME-B10D	10/7/2009	13:52	YSI 650 MDS	Solinst 101	7.92	8.64	324.1	12.18	0.9	7990
ME-B10D	10/7/2009	14:50	YSI 650 MDS	Solinst 101	7.9	NM	NM	NM	NM	NM
ME-B10D	10/7/2009	16:06	YSI 650 MDS	Solinst 101	6.55	8.31	306.7	12.23	0.94	7983
ME-B10D	10/7/2009	16:57	YSI 650 MDS	Solinst 101	7.1	NM	NM	NM	NM	NM
ME-B10D	10/8/2009	10:32	YSI 650 MDS	Solinst 101	7.8	9.28	309.5	12.43	1.2	8453
ME-B10D	10/8/2009	11:17	YSI 650 MDS	Solinst 101	8.3	NM	NM	NM	NM	NM
ME-B10D	10/8/2009	12:25	YSI 650 MDS	Solinst 101	7.6	7.6	336.5	12.46	1.09	8472
ME-B10D	10/8/2009	13:11	YSI 650 MDS	Solinst 101	7.99	NM	NM	NM	NM	NM
ME-B10D	10/8/2009	14:30	YSI 650 MDS	Solinst 101	8.25	7.38	356.6	12.87	1.77	8443
ME-B10D	10/8/2009	15:34	YSI 650 MDS	Solinst 101	7.81	NM	NM	NM	NM	NM
ME-B10D	10/8/2009	16:23	YSI 650 MDS	Solinst 101	6.75	6.04	453.2	12.45	1.85	8417
ME-B10D	10/9/2009	9:30	YSI 650 MDS	Solinst 101	7.69	9.02	444	12.49	3.29	7038
ME-B10D	10/9/2009	10:26	YSI 650 MDS	Solinst 101	7.15	NM	NM	NM	NM	NM
ME-B10D	10/9/2009	11:46	YSI 650 MDS	Solinst 101	6.3	10.99	525.7	12.43	9.48	5743
ME-B10D	10/9/2009	12:47	YSI 650 MDS	Solinst 101	7.81	NM	NM	NM	NM	NM
ME-B10D	10/9/2009	13:44	YSI 650 MDS	Solinst 101	7.25	10.14	473.6	12.37	9.98	7002
ME-B10D	10/12/2009	10:04	YSI 650 MDS	Solinst 101	7.8	8.7	490.2	13.66	2.11	8329
ME-B10D	10/12/2009	10:55	YSI 650 MDS	Solinst 101	8.51	NM	NM	NM	NM	NM
ME-B10D	10/12/2009	12:17	YSI 650 MDS	Solinst 101	7	9.89	459	12.6	3.78	8224

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
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Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
ME-B10D	10/12/2009	13:22	YSI 650 MDS	Solinst 101	7.69	NM	NM	NM	NM	NM
ME-B10D	10/12/2009	14:14	YSI 650 MDS	Solinst 101	7.2	10.34	486.5	12.89	4.09	8245
ME-B10D	10/12/2009	15:17	YSI 650 MDS	Solinst 101	8.15	NM	NM	NM	NM	NM
ME-B10D	10/12/2009	16:18	YSI 650 MDS	Solinst 101	6.2	10.07	536.6	13.11	4.21	5971
ME-B10D	10/13/2009	10:26	YSI 650 MDS	Solinst 101	8.7	10.84	543.5	12.83	6.37	8897
ME-B10D	10/13/2009	11:51	YSI 650 MDS	Solinst 101	8.28	NM	NM	NM	NM	NM
ME-B10D	10/13/2009	12:57	YSI 650 MDS	Solinst 101	6.97	10.98	583.6	13	8.76	8806
ME-B10D	10/13/2009	13:38	YSI 650 MDS	Solinst 101	7.89	NM	NM	NM	NM	NM
ME-B10D	10/13/2009	15:00	YSI 650 MDS	Solinst 101	6.2	10.51	562.9	13.74	7.13	8830
ME-B10D	10/14/2009	10:14	YSI 650 MDS	Solinst 101	8.85	9.03	449.4	14.24	3.35	8004
ME-B10D	10/14/2009	11:21	YSI 650 MDS	Solinst 101	8.35	NM	NM	NM	NM	NM
ME-B10D	10/14/2009	12:23	YSI 650 MDS	Solinst 101	7.81	7.99	524.1	14.64	3.09	8015
ME-B10D	10/14/2009	13:10	YSI 650 MDS	Solinst 101	7.6	NM	NM	NM	NM	NM
ME-B10S	9/29/2009	9:39	YSI 650 MDS	Solinst 101	9.22	4.85	125.5	13.19	2.94	10577
ME-B10S	9/30/2009	9:30	YSI 650 MDS	Solinst 101	9.58	NM	NM	NM	NM	NM
ME-B10S	9/30/2009	10:17	YSI 650 MDS	Solinst 101	9.45	4.56	145.7	13.26	4.19	7640
ME-B10S	9/30/2009	11:12	YSI 650 MDS	Solinst 101	9.37	NM	NM	NM	NM	NM
ME-B10S	9/30/2009	12:19	YSI 650 MDS	Solinst 101	9.05	4.48	153.6	13.19	4.35	7655
ME-B10S	9/30/2009	13:19	YSI 650 MDS	Solinst 101	9.15	NM	NM	NM	NM	NM
ME-B10S	9/30/2009	14:15	YSI 650 MDS	Solinst 101	8.6	4.5	143.7	13.23	4.36	6096
ME-B10S	9/30/2009	14:38	YSI 650 MDS	Solinst 101	8.65	NM	NM	NM	NM	NM
ME-B10S	9/30/2009	15:14	YSI 650 MDS	Solinst 101	8.8	NM	NM	NM	NM	NM
ME-B10S	9/30/2009	16:22	YSI 650 MDS	Solinst 101	8.9	4.57	132	13.25	4.21	5861
ME-B10S	10/2/2009	9:19	YSI 650 MDS	Solinst 101	9.58	NM	NM	NM	NM	NM
ME-B10S	10/2/2009	10:12	YSI 650 MDS	Solinst 101	8.06	4.69	133.8	13.28	4.3	6250
ME-B10S	10/2/2009	11:10	YSI 650 MDS	Solinst 101	9.05	NM	NM	NM	NM	NM
ME-B10S	10/2/2009	12:19	YSI 650 MDS	Solinst 101	8.57	4.61	120.3	13.34	3.23	7040
ME-B10S	10/2/2009	13:24	YSI 650 MDS	Solinst 101	8.95	NM	NM	NM	NM	NM
ME-B10S	10/2/2009	14:16	YSI 650 MDS	Solinst 101	8.6	4.78	82.1	13.55	3.97	6826
ME-B10S	10/2/2009	15:21	YSI 650 MDS	Solinst 101	8.78	NM	NM	NM	NM	NM
ME-B10S	10/5/2009	10:03	YSI 650 MDS	Solinst 101	9.3	13.8	236.9	16.15	0.28	161370
ME-B10S	10/5/2009	10:59	YSI 650 MDS	Solinst 101	9.2	NM	NM	NM	NM	NM

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
ME-B10S	10/5/2009	12:16	YSI 650 MDS	Solinst 101	8.88	13.42	212.8	15.79	0.58	156420
ME-B10S	10/5/2009	13:16	YSI 650 MDS	Solinst 101	8.82	NM	NM	NM	NM	NM
ME-B10S	10/5/2009	14:16	YSI 650 MDS	Solinst 101	5.58	13.64	242.2	15.81	0.67	173328
ME-B10S	10/5/2009	15:16	YSI 650 MDS	Solinst 101	8.76	NM	NM	NM	NM	NM
ME-B10S	10/5/2009	16:32	YSI 650 MDS	Solinst 101	8.4	13.58	214.6	15.86	0.76	161406
ME-B10S	10/6/2009	14:23	YSI 650 MDS	Solinst 101	9.26	NM	NM	NM	NM	NM
ME-B10S	10/6/2009	15:25	YSI 650 MDS	Solinst 101	8.39	13.5	172.3	15.7	7.74	140452
ME-B10S	10/7/2009	13:49	YSI 650 MDS	Solinst 101	8.98	13.76	344.8	17.5	0.73	191188
ME-B10S	10/7/2009	14:47	YSI 650 MDS	Solinst 101	9.1	NM	NM	NM	NM	NM
ME-B10S	10/7/2009	16:05	YSI 650 MDS	Solinst 101	8.1	13.9	403.2	17.1	0.66	184022
ME-B10S	10/7/2009	16:55	YSI 650 MDS	Solinst 101	8.73	NM	NM	NM	NM	NM
ME-B10S	10/8/2009	10:29	YSI 650 MDS	Solinst 101	8.93	13.97	420.1	17.68	0.77	179542
ME-B10S	10/8/2009	11:16	YSI 650 MDS	Solinst 101	9.12	NM	NM	NM	NM	NM
ME-B10S	10/8/2009	12:23	YSI 650 MDS	Solinst 101	8.9	14	463.3	17.43	0.81	170509
ME-B10S	10/8/2009	13:10	YSI 650 MDS	Solinst 101	8.75	NM	NM	NM	NM	NM
ME-B10S	10/8/2009	14:28	YSI 650 MDS	Solinst 101	8.4	13.78	399.5	17.5	1.49	160329
ME-B10S	10/8/2009	15:34	YSI 650 MDS	Solinst 101	7.91	NM	NM	NM	NM	NM
ME-B10S	10/8/2009	16:21	YSI 650 MDS	Solinst 101	7.3	14	424.5	17.7	1.02	157167
ME-B10S	10/9/2009	9:28	YSI 650 MDS	Solinst 101	8.95	13.71	390.9	17.87	2.45	133401
ME-B10S	10/9/2009	10:25	YSI 650 MDS	Solinst 101	8.91	NM	NM	NM	NM	NM
ME-B10S	10/9/2009	11:43	YSI 650 MDS	Solinst 101	8.45	8.83	232.7	18.17	6.23	106611
ME-B10S	10/9/2009	12:44	YSI 650 MDS	Solinst 101	8.77	NM	NM	NM	NM	NM
ME-B10S	10/9/2009	13:43	YSI 650 MDS	Solinst 101	8.25	8.21	224.8	17.99	7.4	106025
ME-B10S	10/12/2009	10:02	YSI 650 MDS	Solinst 101	9.37	13.69	402.2	18.13	1.4	137401
ME-B10S	10/12/2009	10:54	YSI 650 MDS	Solinst 101	9.24	NM	NM	NM	NM	NM
ME-B10S	10/12/2009	12:16	YSI 650 MDS	Solinst 101	9.12	9.87	251.2	18.38	3.31	118912
ME-B10S	10/12/2009	13:21	YSI 650 MDS	Solinst 101	8.81	NM	NM	NM	NM	NM
ME-B10S	10/12/2009	14:13	YSI 650 MDS	Solinst 101	8.7	9.21	201.8	18.64	3.21	116872
ME-B10S	10/12/2009	15:17	YSI 650 MDS	Solinst 101	8.98	NM	NM	NM	NM	NM
ME-B10S	10/12/2009	16:17	YSI 650 MDS	Solinst 101	8.02	10.09	317.4	18.69	3.04	116854
ME-B10S	10/13/2009	10:25	YSI 650 MDS	Solinst 101	9.52	8.81	225.5	18.81	4.63	74512
ME-B10S	10/13/2009	11:50	YSI 650 MDS	Solinst 101	8.47	NM	NM	NM	NM	NM

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
ME-B10S	10/13/2009	12:56	YSI 650 MDS	Solinst 101	8.4	8.54	249.2	18.62	4.84	131509
ME-B10S	10/13/2009	13:37	YSI 650 MDS	Solinst 101	8.85	NM	NM	NM	NM	NM
ME-B10S	10/13/2009	14:59	YSI 650 MDS	Solinst 101	9.1	7.04	233.8	18.75	4.78	131306
ME-B10S	10/14/2009	10:12	YSI 650 MDS	Solinst 101	9.6	13.05	370.7	18.79	2.64	160186
ME-B10S	10/14/2009	11:20	YSI 650 MDS	Solinst 101	9.2	NM	NM	NM	NM	NM
ME-B10S	10/14/2009	12:21	YSI 650 MDS	Solinst 101	9.4	14	429.2	19	2	182910
ME-B10S	10/14/2009	13:09	YSI 650 MDS	Solinst 101	9.21	NM	NM	NM	NM	NM
MEOW-3	9/29/2009	9:25	YSI 650 MDS	Solinst 101	5.6	6.94	-51.9	15.09	4.32	911
MEOW-3	9/29/2009	12:35	YSI 650 MDS	Solinst 101	5.4	NM	NM	NM	NM	NM
MEOW-3	9/29/2009	14:53	YSI 650 MDS	Solinst 101	6.65	6.77	-68.1	15.01	7.69	884
MEOW-3	9/29/2009	15:50	YSI 650 MDS	Solinst 101	4.29	6.3	24.2	15.21	3.99	852
MEOW-3	9/30/2009	12:35	YSI 650 MDS	Solinst 101	4.57	6.35	-19.7	14.75	5.07	882
MEOW-3	9/30/2009	13:25	YSI 650 MDS	Solinst 101	5.46	NM	NM	NM	NM	NM
MEOW-3	9/30/2009	14:25	YSI 650 MDS	Solinst 101	4.51	5.77	40	14.63	3.54	890
MEOW-3	9/30/2009	15:17	YSI 650 MDS	Solinst 101	5.38	NM	NM	NM	NM	NM
MEOW-3	9/30/2009	16:38	YSI 650 MDS	Solinst 101	4.7	6.21	-26	14.71	3.6	734
MEOW-3	10/2/2009	9:00	YSI 650 MDS	Solinst 101	5.74	NM	NM	NM	NM	NM
MEOW-3	10/2/2009	10:01	YSI 650 MDS	Solinst 101	5.01	6.46	-23.7	14.32	4.96	968
MEOW-3	10/2/2009	11:18	YSI 650 MDS	Solinst 101	5.57	NM	NM	NM	NM	NM
MEOW-3	10/2/2009	12:34	YSI 650 MDS	Solinst 101	4.9	6.13	-40.4	14.6	2.37	1007
MEOW-3	10/2/2009	13:30	YSI 650 MDS	Solinst 101	5.31	NM	NM	NM	NM	NM
MEOW-3	10/2/2009	14:03	YSI 650 MDS	Solinst 101	5.4	6.24	-77.7	14.66	2.83	998
MEOW-3	10/2/2009	15:15	YSI 650 MDS	Solinst 101	5.55	NM	NM	NM	NM	NM
MEOW-3	10/5/2009	9:49	YSI 650 MDS	Solinst 101	5.1	6.31	-24.3	14.96	3.34	963
MEOW-3	10/5/2009	10:57	YSI 650 MDS	Solinst 101	5.73	NM	NM	NM	NM	NM
MEOW-3	10/5/2009	12:06	YSI 650 MDS	Solinst 101	4.6	7.31	-126.4	14.66	5.28	992
MEOW-3	10/5/2009	13:08	YSI 650 MDS	Solinst 101	5.55	NM	NM	NM	NM	NM
MEOW-3	10/5/2009	14:02	YSI 650 MDS	Solinst 101	4.72	6.02	-55.1	15.37	2.82	979
MEOW-3	10/5/2009	15:15	YSI 650 MDS	Solinst 101	5.46	NM	NM	NM	NM	NM
MEOW-3	10/5/2009	16:20	YSI 650 MDS	Solinst 101	4.48	7.68	-142.6	14.56	2.13	936
MEOW-3	10/6/2009	13:15	YSI 650 MDS	Solinst 101	5.8	6.22	-89.2	14.77	1.83	947
MEOW-3	10/6/2009	14:18	YSI 650 MDS	Solinst 101	5.79	NM	NM	NM	NM	NM

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
MEOW-3	10/6/2009	15:16	YSI 650 MDS	Solinst 101	5.76	6.95	-95.7	14.79	16.45	936
MEOW-3	10/7/2009	13:38	YSI 650 MDS	Solinst 101	4.65	6.48	-74.5	14.64	1.81	988
MEOW-3	10/7/2009	14:30	YSI 650 MDS	Solinst 101	5.2	NM	NM	NM	NM	NM
MEOW-3	10/7/2009	15:51	YSI 650 MDS	Solinst 101	5.1	NM	NM	NM	NM	NM
MEOW-3	10/7/2009	15:57	YSI 650 MDS	Solinst 101	4.05	6.35	-75.4	14.36	1.52	1005
MEOW-3	10/8/2009	15:30	YSI 650 MDS	Solinst 101	5.31	NM	NM	NM	NM	NM
MEOW-3	10/8/2009	16:12	YSI 650 MDS	Solinst 101	4.4	6.76	-61.2	14.22	5.22	1049
MEOW-3	10/9/2009	9:17	YSI 650 MDS	Solinst 101	4.7	7.08	-63.7	14.18	3.09	871
MEOW-3	10/9/2009	10:20	YSI 650 MDS	Solinst 101	5.49	NM	NM	NM	NM	NM
MEOW-3	10/9/2009	11:34	YSI 650 MDS	Solinst 101	5.31	4.64	175.2	14.28	12.5	862
MEOW-3	10/9/2009	12:35	YSI 650 MDS	Solinst 101	5.08	NM	NM	NM	NM	NM
MEOW-3	10/9/2009	13:38	YSI 650 MDS	Solinst 101	4.05	4.61	253.2	14.29	13.06	881
MEOW-3	10/12/2009	9:46	YSI 650 MDS	Solinst 101	5	7.59	-28.9	14.04	3.96	1007
MEOW-3	10/12/2009	10:45	YSI 650 MDS	Solinst 101	5.71	NM	NM	NM	NM	NM
MEOW-3	10/12/2009	12:09	YSI 650 MDS	Solinst 101	5.6	8.14	-119.2	13.43	5.57	1029
MEOW-3	10/12/2009	13:15	YSI 650 MDS	Solinst 101	5.38	NM	NM	NM	NM	NM
MEOW-3	10/12/2009	14:07	YSI 650 MDS	Solinst 101	4.45	7.14	101.8	13.78	10.43	1021
MEOW-3	10/12/2009	15:10	YSI 650 MDS	Solinst 101	5.35	NM	NM	NM	NM	NM
MEOW-3	10/12/2009	16:08	YSI 650 MDS	Solinst 101	4.34	4.96	76.2	13.57	4.68	1026
MEOW-3	10/13/2009	10:18	YSI 650 MDS	Solinst 101	5.65	8.16	127.7	13.68	9.37	1069
MEOW-3	10/13/2009	11:45	YSI 650 MDS	Solinst 101	5.41	NM	NM	NM	NM	NM
MEOW-3	10/13/2009	12:45	YSI 650 MDS	Solinst 101	5.31	4.62	261.6	13.58	5.81	1100
MEOW-3	10/13/2009	13:30	YSI 650 MDS	Solinst 101	5.23	NM	NM	NM	NM	NM
MEOW-3	10/13/2009	14:51	YSI 650 MDS	Solinst 101	5.31	4.19	360	13.63	9.28	1101
MEOW-3	10/14/2009	9:43	YSI 650 MDS	Solinst 101	5.63	8.38	-60	13.5	8.06	965
MEOW-3	10/14/2009	11:15	YSI 650 MDS	Solinst 101	5.4	NM	NM	NM	NM	NM
MEOW-3	10/14/2009	12:06	YSI 650 MDS	Solinst 101	5.3	5.39	118.4	13.16	6.42	991
MEOW-3	10/14/2009	13:05	YSI 650 MDS	Solinst 101	4.9	NM	NM	NM	NM	NM
ME-PM-B11	9/29/2009	9:43	YSI 650 MDS	Solinst 101	8.9	5.48	68	12.38	3	2322
ME-PM-B11	9/30/2009	10:23	YSI 650 MDS	Solinst 101	8.75	4.95	130.2	11.57	3.53	2360
ME-PM-B11	9/30/2009	12:24	YSI 650 MDS	Solinst 101	8.49	4.67	154.7	11.44	3.57	2318
ME-PM-B11	9/30/2009	13:23	YSI 650 MDS	Solinst 101	8.51	NM	NM	NM	NM	NM

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
ME-PM-B11	9/30/2009	14:22	YSI 650 MDS	Solinst 101	8.29	4.52	158.9	11.51	3.35	1868
ME-PM-B11	9/30/2009	15:15	YSI 650 MDS	Solinst 101	8.01	NM	NM	NM	NM	NM
ME-PM-B11	9/30/2009	16:27	YSI 650 MDS	Solinst 101	7.85	4.29	187	11.3	3.77	1972
ME-PM-B11	10/2/2009	9:35	YSI 650 MDS	Solinst 101	9.02	NM	NM	NM	NM	NM
ME-PM-B11	10/2/2009	10:09	YSI 650 MDS	Solinst 101	8.72	4.5	155.6	12.16	4.13	3110
ME-PM-B11	10/2/2009	11:08	YSI 650 MDS	Solinst 101	8.8	NM	NM	NM	NM	NM
ME-PM-B11	10/2/2009	12:17	YSI 650 MDS	Solinst 101	8.4	4.38	143.4	11.86	2.88	3285
ME-PM-B11	10/2/2009	13:20	YSI 650 MDS	Solinst 101	8.18	NM	NM	NM	NM	NM
ME-PM-B11	10/2/2009	13:23	YSI 650 MDS	Solinst 101	8.47	NM	NM	NM	NM	NM
ME-PM-B11	10/2/2009	14:12	YSI 650 MDS	Solinst 101	8.15	4.58	100.2	12.25	3.96	3272
ME-PM-B11	10/5/2009	10:00	YSI 650 MDS	Solinst 101	8.68	4.38	125.5	12.09	3.31	3147
ME-PM-B11	10/5/2009	11:07	YSI 650 MDS	Solinst 101	8.06	NM	NM	NM	NM	NM
ME-PM-B11	10/5/2009	12:13	YSI 650 MDS	Solinst 101	8.06	4.28	160.4	11.61	3.56	3416
ME-PM-B11	10/5/2009	13:14	YSI 650 MDS	Solinst 101	8.42	NM	NM	NM	NM	NM
ME-PM-B11	10/5/2009	14:13	YSI 650 MDS	Solinst 101	8.18	4.2	191.8	12.22	2.9	3647
ME-PM-B11	10/5/2009	15:20	YSI 650 MDS	Solinst 101	8.17	NM	NM	NM	NM	NM
ME-PM-B11	10/5/2009	16:30	YSI 650 MDS	Solinst 101	7.76	4.35	183.2	12.15	1.5	3611
ME-PM-B11	10/6/2009	13:25	YSI 650 MDS	Solinst 101	8.52	4.23	157	12.11	2.95	3810
ME-PM-B11	10/6/2009	14:22	YSI 650 MDS	Solinst 101	8.72	NM	NM	NM	NM	NM
ME-PM-B11	10/6/2009	15:23	YSI 650 MDS	Solinst 101	8.3	4.23	175.6	12.05	16.83	3610
ME-PM-B11	10/7/2009	13:47	YSI 650 MDS	Solinst 101	8.43	4.06	169	12.14	1.47	3977
ME-PM-B11	10/7/2009	14:44	YSI 650 MDS	Solinst 101	8.66	NM	NM	NM	NM	NM
ME-PM-B11	10/7/2009	16:02	YSI 650 MDS	Solinst 101	7.7	4.04	208.6	11.7	1.82	3428
ME-PM-B11	10/7/2009	16:54	YSI 650 MDS	Solinst 101	7.96	NM	NM	NM	NM	NM
ME-PM-B11	10/8/2009	11:14	YSI 650 MDS	Solinst 101	8.62	NM	NM	NM	NM	NM
ME-PM-B11	10/8/2009	12:20	YSI 650 MDS	Solinst 101	7.75	4.28	262.5	12.38	2.7	4537
ME-PM-B11	10/8/2009	13:09	YSI 650 MDS	Solinst 101	8.25	NM	NM	NM	NM	NM
ME-PM-B11	10/8/2009	14:26	YSI 650 MDS	Solinst 101	8	4.16	277.3	11.96	3.2	4273
ME-PM-B11	10/8/2009	15:33	YSI 650 MDS	Solinst 101	8.32	NM	NM	NM	NM	NM
ME-PM-B11	10/8/2009	16:18	YSI 650 MDS	Solinst 101	7.6	4.21	306.7	11.76	3.48	4012
ME-PM-B11	10/9/2009	9:23	YSI 650 MDS	Solinst 101	8.29	4.35	246.5	13.49	3.02	6526
ME-PM-B11	10/9/2009	10:24	YSI 650 MDS	Solinst 101	8.51	NM	NM	NM	NM	NM

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
ME-PM-B11	10/9/2009	11:40	YSI 650 MDS	Solinst 101	8	3.93	388	11.74	10.82	3435
ME-PM-B11	10/9/2009	12:41	YSI 650 MDS	Solinst 101	8.26	NM	NM	NM	NM	NM
ME-PM-B11	10/9/2009	13:42	YSI 650 MDS	Solinst 101	7.7	4.22	413.2	12.19	14.5	3638
ME-PM-B11	10/12/2009	9:59	YSI 650 MDS	Solinst 101	8.5	3.95	337.6	12.23	2.53	4174
ME-PM-B11	10/12/2009	10:52	YSI 650 MDS	Solinst 101	8.56	NM	NM	NM	NM	NM
ME-PM-B11	10/12/2009	12:13	YSI 650 MDS	Solinst 101	8.41	3.08	422	13.32	6.86	19934
ME-PM-B11	10/12/2009	13:20	YSI 650 MDS	Solinst 101	8.12	NM	NM	NM	NM	NM
ME-PM-B11	10/12/2009	14:11	YSI 650 MDS	Solinst 101	7.95	3.87	327.6	11.76	4.7	4197
ME-PM-B11	10/12/2009	15:15	YSI 650 MDS	Solinst 101	8.41	NM	NM	NM	NM	NM
ME-PM-B11	10/12/2009	16:16	YSI 650 MDS	Solinst 101	7.7	3.65	399	11.9	8.23	4158
ME-PM-B11	10/13/2009	10:24	YSI 650 MDS	Solinst 101	8.93	3.82	389.1	12.27	7.22	4990
ME-PM-B11	10/13/2009	11:49	YSI 650 MDS	Solinst 101	8.51	NM	NM	NM	NM	NM
ME-PM-B11	10/13/2009	12:54	YSI 650 MDS	Solinst 101	8.18	3.52	443.4	11.72	10	4869
ME-PM-B11	10/13/2009	13:35	YSI 650 MDS	Solinst 101	7.67	NM	NM	NM	NM	NM
ME-PM-B11	10/13/2009	14:57	YSI 650 MDS	Solinst 101	8.51	3.59	450.4	11.8	8.21	4812
ME-PM-B11	10/14/2009	10:11	YSI 650 MDS	Solinst 101	8.32	3.37	324.6	11.92	2.4	3773
ME-PM-B11	10/14/2009	11:18	YSI 650 MDS	Solinst 101	8.3	NM	NM	NM	NM	NM
ME-PM-B11	10/14/2009	12:16	YSI 650 MDS	Solinst 101	8.12	3.61	385.3	11.67	4.41	3883
ME-PM-B11	10/14/2009	13:08	YSI 650 MDS	Solinst 101	7.7	NM	NM	NM	NM	NM
S04	9/29/2009	9:15	YSI 650 MDS	Solinst 101	4.85	7.23	-140.6	14.02	2.88	8842
S04	9/29/2009	11:41	YSI 650 MDS	Solinst 101	3.81	7.35	-165.9	14.55	6.9	11447
S04	9/29/2009	12:10	YSI 650 MDS	Solinst 101	1.4	NM	NM	NM	NM	NM
S04	9/30/2009	11:14	YSI 650 MDS	Solinst 101	5.25	NM	NM	NM	NM	NM
S04	9/30/2009	12:28	YSI 650 MDS	Solinst 101	4.5	5.89	22.2	13.81	7.19	11846
S04	9/30/2009	13:28	YSI 650 MDS	Solinst 101	4.64	NM	NM	NM	NM	NM
S04	9/30/2009	14:33	YSI 650 MDS	Solinst 101	4.3	6.02	-7.2	13.71	7.05	14096
S04	9/30/2009	15:19	YSI 650 MDS	Solinst 101	4.45	NM	NM	NM	NM	NM
S04	9/30/2009	16:30	YSI 650 MDS	Solinst 101	4.25	5.75	16.3	13.84	7.76	10096
S04	10/1/2009	9:06	YSI 650 MDS	Solinst 101	4.4	NM	NM	NM	NM	NM
S04	10/1/2009	10:25	YSI 650 MDS	Solinst 101	4.6	6.06	-26.2	13.85	7	13237
S04	10/1/2009	11:25	YSI 650 MDS	Solinst 101	4.71	NM	NM	NM	NM	NM
S04	10/1/2009	12:27	YSI 650 MDS	Solinst 101	4.52	6.34	35.2	14.48	16.23	11047

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
S04	10/1/2009	13:05	YSI 650 MDS	Solinst 101	4.2	6.1	62.5	14.39	12.3	10819
S04	10/1/2009	13:18	YSI 650 MDS	Solinst 101	4.85	NM	NM	NM	NM	NM
S04	10/1/2009	14:12	YSI 650 MDS	Solinst 101	4.75	6.3	-73.5	13.92	4.39	27
S04	10/2/2009	8:00	YSI 650 MDS	Solinst 101	4.99	NM	NM	NM	NM	NM
S04	10/2/2009	8:25	YSI 650 MDS	Solinst 101	3.4	6.01	-0.5	13.47	6.36	14590
S04	10/2/2009	9:52	YSI 650 MDS	Solinst 101	2.98	NM	NM	NM	NM	NM
S04	10/2/2009	10:17	YSI 650 MDS	Solinst 101	2.85	6.01	44.6	14.47	10.63	11008
S04	10/2/2009	11:13	YSI 650 MDS	Solinst 101	3.2	NM	NM	NM	NM	NM
S04	10/2/2009	12:24	YSI 650 MDS	Solinst 101	3.88	5.53	44.3	14.23	11.7	11768
S04	10/2/2009	13:27	YSI 650 MDS	Solinst 101	4.46	NM	NM	NM	NM	NM
S04	10/2/2009	14:21	YSI 650 MDS	Solinst 101	4.4	5.77	17.8	13.86	9.43	12552
S04	10/2/2009	15:23	YSI 650 MDS	Solinst 101	4.7	NM	NM	NM	NM	NM
S04	10/5/2009	10:09	YSI 650 MDS	Solinst 101	4.65	6.21	97.7	14.22	9.73	10966
S04	10/5/2009	11:10	YSI 650 MDS	Solinst 101	4.56	NM	NM	NM	NM	NM
S04	10/5/2009	12:21	YSI 650 MDS	Solinst 101	4.05	6.11	4.7	14.22	5.89	12221
S04	10/5/2009	13:19	YSI 650 MDS	Solinst 101	4.4	NM	NM	NM	NM	NM
S04	10/5/2009	14:22	YSI 650 MDS	Solinst 101	4.21	5.98	-1.2	14.11	4.91	12405
S04	10/5/2009	15:22	YSI 650 MDS	Solinst 101	4.45	NM	NM	NM	NM	NM
S04	10/5/2009	16:37	YSI 650 MDS	Solinst 101	3.9	5.98	-29.6	14.08	4.45	11625
S04	10/6/2009	8:21	YSI 650 MDS	Solinst 101	4.7	7.35	-64.2	13.95	3.65	10257
S04	10/6/2009	8:59	YSI 650 MDS	Solinst 101	4.7	NM	NM	NM	NM	NM
S04	10/6/2009	10:13	YSI 650 MDS	Solinst 101	4.34	6	-47.7	14.06	2.99	11680
S04	10/6/2009	11:05	YSI 650 MDS	Solinst 101	4.73	NM	NM	NM	NM	NM
S04	10/6/2009	13:33	YSI 650 MDS	Solinst 101	4.55	6.01	-54	14.27	4.56	10872
S04	10/6/2009	14:26	YSI 650 MDS	Solinst 101	4.53	NM	NM	NM	NM	NM
S04	10/6/2009	15:30	YSI 650 MDS	Solinst 101	3.76	6.1	-69.8	14.06	15.62	12889
S04	10/7/2009	13:57	YSI 650 MDS	Solinst 101	4.17	5.91	-55.6	14.31	1.67	11079
S04	10/7/2009	14:49	YSI 650 MDS	Solinst 101	4.19	NM	NM	NM	NM	NM
S04	10/7/2009	16:09	YSI 650 MDS	Solinst 101	2.6	5.97	-32.2	14.11	1.75	12934
S04	10/7/2009	16:59	YSI 650 MDS	Solinst 101	3.78	NM	NM	NM	NM	NM
S04	10/8/2009	10:35	YSI 650 MDS	Solinst 101	4.41	6.29	-34.7	14.12	1.59	12365
S04	10/8/2009	11:20	YSI 650 MDS	Solinst 101	4.55	NM	NM	NM	NM	NM

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
S04	10/8/2009	12:27	YSI 650 MDS	Solinst 101	3.71	6.3	-9.8	14.08	2.62	13616
S04	10/8/2009	13:12	YSI 650 MDS	Solinst 101	3.89	NM	NM	NM	NM	NM
S04	10/8/2009	14:33	YSI 650 MDS	Solinst 101	3.25	6.03	2.1	14	3.07	14932
S04	10/8/2009	15:35	YSI 650 MDS	Solinst 101	3.99	NM	NM	NM	NM	NM
S04	10/8/2009	16:25	YSI 650 MDS	Solinst 101	3.7	5.92	113.8	14.12	4.26	13225
S04	10/9/2009	9:33	YSI 650 MDS	Solinst 101	4.25	6.19	109.2	14.18	4.04	9166
S04	10/9/2009	10:27	YSI 650 MDS	Solinst 101	4.41	NM	NM	NM	NM	NM
S04	10/9/2009	11:48	YSI 650 MDS	Solinst 101	3.7	6.46	293.5	14.75	11.29	8390
S04	10/9/2009	12:49	YSI 650 MDS	Solinst 101	3.9	NM	NM	NM	NM	NM
S04	10/9/2009	13:46	YSI 650 MDS	Solinst 101	3.4	6.33	261.5	14.29	11.99	11944
S04	10/12/2009	10:08	YSI 650 MDS	Solinst 101	4.57	6.33	146.1	14.11	2.11	12795
S04	10/12/2009	10:57	YSI 650 MDS	Solinst 101	4.46	NM	NM	NM	NM	NM
S04	10/12/2009	12:19	YSI 650 MDS	Solinst 101	3.65	6.09	278.1	14.13	6.22	14463
S04	10/12/2009	13:24	YSI 650 MDS	Solinst 101	3.7	NM	NM	NM	NM	NM
S04	10/12/2009	14:15	YSI 650 MDS	Solinst 101	3.55	6.36	301.9	14.32	6.74	14523
S04	10/12/2009	15:14	YSI 650 MDS	Solinst 101	4.1	NM	NM	NM	NM	NM
S04	10/12/2009	16:20	YSI 650 MDS	Solinst 101	3.65	6.59	300.2	14.27	6.12	13981
S04	10/13/2009	10:28	YSI 650 MDS	Solinst 101	4.72	6.56	283.1	14.02	4.99	13713
S04	10/13/2009	11:52	YSI 650 MDS	Solinst 101	4.26	NM	NM	NM	NM	NM
S04	10/13/2009	12:59	YSI 650 MDS	Solinst 101	3.4	6.04	368.4	14.5	8.4	11169
S04	10/13/2009	13:40	YSI 650 MDS	Solinst 101	3.34	NM	NM	NM	NM	NM
S04	10/13/2009	15:03	YSI 650 MDS	Solinst 101	3.9	6.37	389.7	14.38	9.51	6712
S04	10/14/2009	10:20	YSI 650 MDS	Solinst 101	4.55	6.34	202	14.15	3.69	10387
S04	10/14/2009	11:22	YSI 650 MDS	Solinst 101	3.35	NM	NM	NM	NM	NM
S04	10/14/2009	12:25	YSI 650 MDS	Solinst 101	3.6	6.38	321.3	14.13	5.32	4796
S04	10/14/2009	13:10	YSI 650 MDS	Solinst 101	3.55	NM	NM	NM	NM	NM
T03	9/29/2009	9:05	YSI 650 MDS	Solinst 101	3.22	7.01	4.6	15.3	4.03	1383
T03	9/29/2009	11:45	YSI 650 MDS	Solinst 101	2.82	6.99	-113.1	14.84	4.4	1737
T03	9/29/2009	12:15	YSI 650 MDS	Solinst 101	3.26	NM	NM	NM	NM	NM
T03	9/29/2009	12:31	YSI 650 MDS	Solinst 101	2.7	6.67	-112.5	14.27	7.93	2061
T03	9/29/2009	14:20	YSI 650 MDS	Solinst 101	NM	6.63	-110.2			
T03	9/29/2009	14:48	YSI 650 MDS	Solinst 101	3.4	6.71	-110.3	14.52	3.24	1656

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
T03	9/29/2009	15:55	YSI 650 MDS	Solinst 101	1.55	6.32	4	14.36	4.21	2353
T03	9/30/2009	12:31	YSI 650 MDS	Solinst 101	2.52	6.28	-15.2	14.36	4.79	1875
T03	9/30/2009	13:30	YSI 650 MDS	Solinst 101	3.29	NM	NM	NM	NM	NM
T03	9/30/2009	14:29	YSI 650 MDS	Solinst 101	2.4	5.95	7.7	14.15	4.88	2129
T03	9/30/2009	15:21	YSI 650 MDS	Solinst 101	3.25	NM	NM	NM	NM	NM
T03	9/30/2009	16:34	YSI 650 MDS	Solinst 101	2.55	6.4	-31	14.06	5.64	1674
T03	10/1/2009	9:03	YSI 650 MDS	Solinst 101	3.6	NM	NM	NM	NM	NM
T03	10/1/2009	10:21	YSI 650 MDS	Solinst 101	2.8	6.1	-25.3	14.19	4.93	1896
T03	10/1/2009	11:26	YSI 650 MDS	Solinst 101	3.61	NM	NM	NM	NM	NM
T03	10/1/2009	12:30	YSI 650 MDS	Solinst 101	2.9	6.42	-26.2	14.17	7.3	2089
T03	10/1/2009	13:15	YSI 650 MDS	Solinst 101	3.65	NM	NM	NM	NM	NM
T03	10/1/2009	14:11	YSI 650 MDS	Solinst 101	3.7	6.21	-70.2	14.24	7.74	1999
T03	10/1/2009	15:00	YSI 650 MDS	Solinst 101	2.7	5.77	41.1	13.67	4.62	2052
T03	10/2/2009	8:02	YSI 650 MDS	Solinst 101	3.78	NM	NM	NM	NM	NM
T03	10/2/2009	8:30	YSI 650 MDS	Solinst 101	2.8	6.45	-33.6	14.22	3.84	1679
T03	10/2/2009	9:50	YSI 650 MDS	Solinst 101	3.3	NM	NM	NM	NM	NM
T03	10/2/2009	10:20	YSI 650 MDS	Solinst 101	3.3	6.67	-48.2	14.13	7.36	2203
T03	10/2/2009	11:15	YSI 650 MDS	Solinst 101	3.2	NM	NM	NM	NM	NM
T03	10/2/2009	12:27	YSI 650 MDS	Solinst 101	2.48	6.24	-48	14.07	5.26	2242
T03	10/2/2009	13:28	YSI 650 MDS	Solinst 101	3.26	NM	NM	NM	NM	NM
T03	10/2/2009	14:24	YSI 650 MDS	Solinst 101	2.65	6.36	-61.4	14.02	4.03	2224
T03	10/2/2009	15:25	YSI 650 MDS	Solinst 101	3.4	NM	NM	NM	NM	NM
T03	10/5/2009	10:12	YSI 650 MDS	Solinst 101	2.9	6.55	-15.2	14.24	3.97	1576
T03	10/5/2009	11:12	YSI 650 MDS	Solinst 101	3.45	NM	NM	NM	NM	NM
T03	10/5/2009	12:24	YSI 650 MDS	Solinst 101	2.45	6.36	-45.9	14.1	2.63	1751
T03	10/5/2009	13:21	YSI 650 MDS	Solinst 101	3.35	NM	NM	NM	NM	NM
T03	10/5/2009	14:25	YSI 650 MDS	Solinst 101	2.51	6.46	-55	14.14	2.67	1758
T03	10/5/2009	15:25	YSI 650 MDS	Solinst 101	3.32	NM	NM	NM	NM	NM
T03	10/5/2009	16:39	YSI 650 MDS	Solinst 101	2.35	6.4	-74.2	14.09	2.75	1770
T03	10/6/2009	8:24	YSI 650 MDS	Solinst 101	2.9	6.98	-109	13.97	1.85	1758
T03	10/6/2009	8:57	YSI 650 MDS	Solinst 101	3.6	NM	NM	NM	NM	NM
T03	10/6/2009	10:10	YSI 650 MDS	Solinst 101	2.77	5.87	-38.1	13.9	2.64	1734

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
T03	10/6/2009	11:00	YSI 650 MDS	Solinst 101	3.56	NM	NM	NM	NM	NM
T03	10/6/2009	13:35	YSI 650 MDS	Solinst 101	2.8	6.38	-89	14.07	3.54	1747
T03	10/6/2009	14:27	YSI 650 MDS	Solinst 101	3.51	NM	NM	NM	NM	NM
T03	10/6/2009	15:32	YSI 650 MDS	Solinst 101	2.45	6.53	-91.7	14.04	14.39	1760
T03	10/7/2009	13:59	YSI 650 MDS	Solinst 101	2.27	6.39	-81	14.12	1.55	1736
T03	10/7/2009	14:51	YSI 650 MDS	Solinst 101	3	NM	NM	NM	NM	NM
T03	10/7/2009	16:09	YSI 650 MDS	Solinst 101	2.07	6.2	-71.5	13.92	0.74	1883
T03	10/7/2009	17:00	YSI 650 MDS	Solinst 101	2.96	NM	NM	NM	NM	NM
T03	10/8/2009	10:38	YSI 650 MDS	Solinst 101	2.45	6.68	-79.9	14.04	1.32	1716
T03	10/8/2009	11:22	YSI 650 MDS	Solinst 101	3.4	NM	NM	NM	NM	NM
T03	10/8/2009	12:29	YSI 650 MDS	Solinst 101	2.29	6.68	-72.8	13.91	1.88	1720
T03	10/8/2009	13:13	YSI 650 MDS	Solinst 101	3.05	NM	NM	NM	NM	NM
T03	10/8/2009	14:35	YSI 650 MDS	Solinst 101	2.1	6.43	-40.7	13.91	2.03	1917
T03	10/8/2009	15:36	YSI 650 MDS	Solinst 101	3.11	NM	NM	NM	NM	NM
T03	10/8/2009	16:27	YSI 650 MDS	Solinst 101	2.25	6.39	12.1	13.89	3.74	1914
T03	10/9/2009	9:37	YSI 650 MDS	Solinst 101	2.51	6.51	-38.7	13.94	2.74	1525
T03	10/9/2009	10:28	YSI 650 MDS	Solinst 101	3.31	NM	NM	NM	NM	NM
T03	10/9/2009	11:50	YSI 650 MDS	Solinst 101	2.15	6.98	125.8	13.82	10.54	1602
T03	10/9/2009	12:51	YSI 650 MDS	Solinst 101	2.91	NM	NM	NM	NM	NM
T03	10/9/2009	13:47	YSI 650 MDS	Solinst 101	3	6.97	116.1	13.89	11.59	1578
T03	10/12/2009	10:11	YSI 650 MDS	Solinst 101	2.57	6.47	-20	13.69	1.77	1732
T03	10/12/2009	10:59	YSI 650 MDS	Solinst 101	3.4	NM	NM	NM	NM	NM
T03	10/12/2009	12:20	YSI 650 MDS	Solinst 101	2.3	6.82	115.8	13.66	5.37	1846
T03	10/12/2009	13:26	YSI 650 MDS	Solinst 101	3.11	NM	NM	NM	NM	NM
T03	10/12/2009	14:16	YSI 650 MDS	Solinst 101	2.25	6.88	108.7	13.58	4.36	1861
T03	10/12/2009	15:20	YSI 650 MDS	Solinst 101	3.09	NM	NM	NM	NM	NM
T03	10/12/2009	16:00	YSI 650 MDS	Solinst 101	2.15	NM	NM	NM	NM	NM
T03	10/13/2009	10:30	YSI 650 MDS	Solinst 101	3.58	6.97	76.4	13.49	4.47	1822
T03	10/13/2009	11:54	YSI 650 MDS	Solinst 101	3.25	NM	NM	NM	NM	NM
T03	10/13/2009	13:00	YSI 650 MDS	Solinst 101	3.25	6.76	222.1	13.44	8.46	1938
T03	10/13/2009	13:42	YSI 650 MDS	Solinst 101	2.98	NM	NM	NM	NM	NM
T03	10/13/2009	15:04	YSI 650 MDS	Solinst 101	3.1	6.99	242.4	12.75	8.82	1927

Table 4-8 (cont.)
Area B - In-Situ Groundwater Parameters
Oxidant Injection Summary Report
Ottati Goss Superfund Site
Kingston, New Hampshire

Well ID	Date	Time	YSI Model	Water Level Model	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)
T03	10/14/2009	10:23	YSI 650 MDS	Solinst 101	3.72	6.55	4.5	13.46	3.3	1701
T03	10/14/2009	11:23	YSI 650 MDS	Solinst 101	3.05	NM	NM	NM	NM	NM
T03	10/14/2009	12:27	YSI 650 MDS	Solinst 101	3.71	6.44	122.9	13.35	2.94	1702
T03	10/14/2009	13:13	YSI 650 MDS	Solinst 101	2.7	NM	NM	NM	NM	NM

Table 4-1
Area A - Injection Summary Table by Date - 2010

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
A11	9/30/2010	D-02	13:36	14:30	0	300	Persulfate	15	13.5	75	54	54	5.56	
A11	10/5/2010	D-02	8:10	8:56	0	300	Persulfate	15	13.5	75	46	46	6.52	
A11	10/6/2010	D-02	9:37	9:46	0	20	Persulfate	15	13.5	5	9	9	2.22	
A11	10/6/2010	D-02	9:50	10:45	0	260	Persulfate	15	13.5	65	55	55	4.73	
A11	10/12/2010	D-02	12:31	13:50	0	300	Catalyst	0.4 % Fe			79	79	3.80	
A11	10/15/2010	D-02	8:14	9:22	0	200	Peroxide (MFR)	8			68	68	2.94	
A11	10/18/2010	D-02	14:00	14:28	0	200	Peroxide (MFR)	8			28	28	7.14	
A11	10/18/2010	D-02	12:20	12:56	0	200	Peroxide (MFR)	8			36	36	5.56	
A11	10/1/2010	D-03	8:50	9:48	0	300	Persulfate	15	13.5	75	58	58	5.17	
A11	10/5/2010	D-03	10:28	11:43	5	300	Persulfate	15	13.5	75	75	75	4.00	
A11	10/6/2010	D-03	10:46	11:06	0	40	Persulfate	15	13.5	10	20	20	2.00	
A11	10/6/2010	D-03	11:07	12:02	6	240	Persulfate	15	13.5	60	55	55	4.36	
A11	10/12/2010	D-03	13:22	14:37	0	300	Catalyst	0.4% Fe			75	75	4.00	
A11	10/15/2010	D-03	9:58	11:15	0	200	Peroxide (MFR)	8			77	77	2.60	
A11	10/18/2010	D-03	14:29	15:35	0	200	Peroxide (MFR)	8			66	66	3.03	
A11	10/19/2010	D-03	15:03	16:00	0	200	Peroxide (MFR)	8			57	57	3.51	
A11	9/30/2010	D-04	13:36	14:30	0	300	Persulfate	15	13.5	75	54	54	5.56	
A11	10/6/2010	D-04	12:50	13:22	0	150	Persulfate	15	13.5	37.5	32	32	4.69	
A11	10/12/2010	D-04	11:41	12:20	0	150	Catalyst	0.4% Fe			39	39	3.85	
A11	10/15/2010	D-04	9:24	9:56	0	100	Peroxide (MFR)	8			32	32	3.13	
A11	10/18/2010	D-04	15:06	15:31	0	100	Peroxide (MFR)	8			25	25	4.00	
A11	10/19/2010	D-04	15:45	16:07	0	100	Peroxide (MFR)	8			22	22	4.55	
A11	9/30/2010	F-02	12:30	13:30	0	300	Persulfate	15	13.5	75	60	60	5.00	
A11	10/1/2010	F-02	9:10	10:20	0	300	Persulfate	15	13.5	75	70	70	4.29	
A11	10/6/2010	F-02	8:27	9:36	0	280	Persulfate	15	13.5	70	69	69	4.06	
A11	10/12/2010	F-02	11:54	13:15	5	300	Catalyst	0.4% Fe			81	81	3.70	
A11	10/15/2010	F-02	8:14	9:22	0	200	Peroxide (MFR)	8			68	68	2.94	
A11	10/18/2010	F-02	12:55	13:58	0	200	Peroxide (MFR)	8			63	63	3.17	
A-11	10/20/2010	F-02	13:01	13:46	0	200	Peroxide (MFR)	8			45	45	4.44	
A11	10/1/2010	F-03	8:00	9:15	0	300	Persulfate	15	13.5	75	75	75	4.00	
A11	10/5/2010	F-03	9:15	10:25	0	300	Persulfate	15	13.5	75	70	70	4.29	
A11	10/6/2010	F-03	12:05	13:18	0	280	Persulfate	15	13.5	70	73	73	3.84	
A11	10/12/2010	F-03	9:50	10:55	0	300	Catalyst	0.4% Fe			65	65	4.62	
A11	10/15/2010	F-03	10:30	11:34	0	200	Peroxide (MFR)	8			64	64	3.13	
A11	10/18/2010	F-03	14:50	15:44	0	200	Peroxide (MFR)	8			54	54	3.70	
A11	10/19/2010	F-03	13:45	15:00	0	200	Peroxide (MFR)	8			75	75	2.67	
A11	9/30/2010	F-04	12:30	13:30	0	300	Persulfate	15	13.5	75	60	60	5.00	
A11	10/5/2010	F-04	10:33	11:39	0	300	Persulfate	15	13.5	75	66	66	4.55	
A11	10/6/2010	F-04	11:28	12:26	0	280	Persulfate	15	13.5	70	58	58	4.83	
A11	10/12/2010	F-04	10:26	11:51	0	300	Catalyst	0.4% Fe			85	85	3.53	
A11	10/15/2010	F-04	11:34	12:14	0	200	Peroxide (MFR)	8			40	40	5.00	
A11	10/18/2010	F-04	14:15	14:50	0	200	Peroxide (MFR)	8			35	35	5.71	
A11	10/20/2010	F-04	12:25	12:56	0	200	Peroxide (MFR)	8			31	31	6.45	
A11	10/1/2010	ME-IAS	7:55	8:55	0	150	Persulfate	15	13.5	37.5	60	60	2.50	Breakout
A11	10/5/2010	ME-IAS	8:10	8:50	0	150	Persulfate	15	13.5	37.5	40	40	3.75	

Table 4-1
Area A - Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
A11	10/6/2010	ME-IAS	8:27	10:28	0	150	Persulfate	15	13.5	37.5	121	121	1.24	
A11	10/12/2010	ME-IAS	9:50	10:24	0	150	Catalyst	0.4% Fe			34	34	4.41	
A11	10/15/2010	ME-IAS	11:20	11:34	0	25	Peroxide (MFR)	8			14	14	1.79	Breakout
A11	10/18/2010	ME-IAS	12:55	14:14	0	75	Peroxide (MFR)	8			79	79	0.95	
A11	10/19/2010	ME-IAS	13:45	15:45	0	75	Peroxide (MFR)	8			120	120	0.63	
A11	10/20/2010	ME-IAS	10:42	14:05	0	125	Peroxide (MFR)	8			203	203	0.62	
A11	10/1/2010	ME-IAD	9:25	10:05	0	150	Persulfate	15	13.5	37.5	40	40	3.75	Breakout
A11	10/5/2010	ME-IAD	8:52	10:30	0	150	Persulfate	15	13.5	37.5	98	98	1.53	
A11	10/6/2010	ME-IAD	10:29	11:27	0	150	Persulfate	15	13.5	37.5	58	58	2.59	
A11	10/12/2010	ME-IAD	10:57	11:40	0	150	Catalyst	0.4% Fe			43	43	3.49	
A11	10/15/2010	ME-IAD	9:24	10:28	0	100	Peroxide (MFR)	8			64	64	1.56	
A11	10/18/2010	ME-IAD	15:32	16:15	0	100	Peroxide (MFR)	8			43	43	2.33	
A11	10/20/2010	ME-IAD	13:01	14:00	0	100	Peroxide (MFR)	8			59	59	1.69	
A14	9/20/2010	H-10	10:10	12:15	12	100	Peroxide	8			125	125	0.80	
A14	9/21/2010	H-10	11:51	13:50	2	100	Peroxide	8			119	119	0.84	
A14	9/22/2010	H-10	12:02	13:15	4	100	Peroxide	8			73	73	1.37	
A14	9/23/2010	H-10	10:20	12:18	4	100	Peroxide	8			118	118	0.85	
A14	9/24/2010	H-10	9:14	10:00	0	100	Peroxide	8			46	46	2.17	
A14	9/27/2010	H-10	9:28	9:49	0	50	Peroxide	8			21	21	2.38	
A14	9/29/2010	H-10	8:59	10:08	10	300	Persulfate	15	13.5	75	69	69	4.35	
A14	10/4/2010	H-10	11:42	13:00	10	300	Persulfate	15	13.5	75	78	78	3.85	
A14	10/6/2010	H-10	13:30	14:10	0	200	Persulfate	15	13.5	50	40	40	5.00	
A14	10/13/2010	H-10	8:54	9:58	0	245	Catalyst	0.4% Fe			64	64	3.83	
A14	10/14/2010	H-10	9:19	11:36	10	200	Peroxide (MFR)	8			137	137	1.46	
A14	10/19/2010	H-10	11:25	13:29	10	200	Peroxide (MFR)	8			124	124	1.61	
A14	10/20/2010	H-10	10:12	10:40	6	90	Peroxide (MFR)	8			28	28	3.21	
A14	9/20/2010	H-11	14:49	15:35	0	100	Peroxide	8			46	46	2.17	
A14	9/21/2010	H-11	8:30	9:32	4	100	Peroxide	8			62	62	1.61	
A14	9/22/2010	H-11	8:54	10:26	14	100	Peroxide	8			92	92	1.09	
A14	9/23/2010	H-11	9:26	10:15	0	100	Peroxide	8			49	49	2.04	
A14	9/24/2010	H-11	10:14	10:54	14	100	Peroxide	8			40	40	2.50	
A14	9/27/2010	H-11	8:55	9:24	2	50	Peroxide	8			29	29	1.72	
A14	9/29/2010	H-11	10:33	11:49	30	300	Persulfate	15	13.5	75	76	76	3.95	
A14	10/5/2010	H-11	8:20	9:39	0	300	Persulfate	15	13.5	75	79	79	3.80	
A14	10/6/2010	H-11	13:55	15:30	0	200	Persulfate	15	13.5	50	95	95	2.11	
A14	10/13/2010	H-11	12:27	13:12	0	245	Catalyst	0.4% Fe			45	45	5.44	
A14	10/14/2010	H-11	14:13	15:40	20	200	Peroxide (MFR)	8			87	87	2.30	
A14	10/15/2010	H-11	14:35	15:32	0	150	Peroxide (MFR)	8			57	57	2.63	
A14	10/19/2010	H-11	15:00	16:02	0	140	Peroxide (MFR)	8			62	62	2.26	
A14	9/20/2010	H-12	12:12	14:17	10	100	Peroxide	8			125	125	0.80	Breakout around well casing
A14	9/21/2010	H-12	10:49	12:59	4	100	Peroxide	8			130	130	0.77	
A14	9/22/2010	H-12	7:50	9:26	14	100	Peroxide	8			96	96	1.04	
A14	9/23/2010	H-12	9:54	12:04	12	100	Peroxide	8			130	130	0.77	
A14	9/24/2010	H-12	10:41	12:01	12	100	Peroxide	8			80	80	1.25	
A14	9/27/2010	H-12	9:55	10:54	10	50	Peroxide	8			59	59	0.85	
A14	9/29/2010	H-12	13:50	15:14	20	300	Persulfate	15	13.5	75	84	84	3.57	

Table 4-1
Area A - Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
A14	10/5/2010	H-12	8:38	10:46	16	300	Persulfate	15	13.5	75	128	128	2.34	
A14	10/7/2010	H-12	8:30	9:20	0	200	Persulfate	15	13.5	50	50	50	4.00	
A14	10/13/2010	H-12	11:08	12:07	0	245	Catalyst	0.4% Fe			59	59	4.15	
A14	10/14/2010	H-12	11:30	13:43	0	175	Peroxide (MFR)	8			133	133	1.32	
A14	10/15/2010	H-12	13:38	14:50	15	50	Peroxide (MFR)	8			72	72	0.69	
A14	10/19/2010	H-12	9:45	11:10	10	125	Peroxide (MFR)	8			85	85	1.47	Breakout around well casing
A14	10/20/2010	H-12	9:03	10:22	8	140	Peroxide (MFR)	8			79	79	1.77	
A14	9/20/2010	H-13	10:47	12:09	20	100	Peroxide	8			82	82	1.22	
A14	9/21/2010	H-13	8:52	11:27	10	100	Peroxide	8			155	155	0.65	
A14	9/22/2010	H-13	7:50	9:14	26	75	Peroxide	8			84	84	0.89	Breakout around well casing
A14	9/23/2010	H-13	8:44	11:24	12	125	Peroxide	8			160	160	0.78	
A14	9/24/2010	H-13	7:40	10:20	24	100	Peroxide	8			160	160	0.63	
A14	9/27/2010	H-13	9:24	9:49	0	50	Peroxide	8			25	25	2.00	
A14	9/28/2010	H-13	10:38	11:38	16	100	Persulfate	15	13.5	25	60	60	1.67	
A14	9/30/2010	H-13	8:30	10:43	10	300	Persulfate	15	13.5	75	133	133	2.26	
A14	10/4/2010	H-13	8:54	9:46	6	300	Persulfate	15	13.5	75	52	52	5.77	
A14	10/5/2010	H-13	10:55	11:40	0	100	Persulfate	15	13.5	25	45	45	2.22	
A14	10/13/2010	H-13	9:48	10:46	0	245	Catalyst	0.4% Fe			58	58	4.22	
A14	10/14/2010	H-13	9:25	10:06	6	125	Peroxide (MFR)	8			41	41	3.05	Breakout around well casing
A14	10/15/2010	H-13	12:34	13:31	8	50	Peroxide (MFR)	8			57	57	0.88	Breakout around well casing
A14	10/18/2010	H-13	10:25	11:40	8	125	Peroxide (MFR)	8			75	75	1.67	Breakout around well casing
A14	10/19/2010	H-13	8:45	9:36	8	100	Peroxide (MFR)	8			51	51	1.96	
A14	10/20/2010	H-13	8:20	9:00	0	90	Peroxide (MFR)	8			40	40	2.25	
A14	9/29/2010	H-14	12:51	13:48	0	300	Persulfate	15	13.5	75	57	57	5.26	
A14	10/1/2010	H-14	8:05	9:03	0	300	Persulfate	15	13.5	75	58	58	5.17	
A14	10/6/2010	H-14	14:11	14:20	0	65	Persulfate	15	13.5	16.25	9	9	7.22	
A14	10/13/2010	H-14	12:21	13:17	0	180	Catalyst	0.4% Fe			56	56	3.21	
A14	10/14/2010	H-14	13:47	14:25	0	200	Peroxide (MFR)	8			38	38	5.26	
A14	10/15/2010	H-14	14:58	15:30	0	125	Peroxide (MFR)	8			32	32	3.91	
A14	10/19/2010	H-14	14:33	14:45	0	35	Peroxide (MFR)	8			12	12	2.92	
A14	9/28/2010	H-15	11:40	12:15	0	200	Persulfate	15	13.5	50	35	35	5.71	
A14	9/30/2010	H-15	8:25	9:37	6	300	Persulfate	15	13.5	75	72	72	4.17	
A14	10/7/2010	H-15	10:59	11:35	0	165	Persulfate	15	13.5	41.25	36	36	4.58	
A14	10/13/2010	H-15	11:44	12:19	0	190	Catalyst	0.4% Fe			35	35	5.43	
A14	10/14/2010	H-15	9:56	12:01	6	200	Peroxide (MFR)	8			125	125	1.60	
A14	10/19/2010	H-15	14:56	15:40	0	160	Peroxide (MFR)	8			44	44	3.64	
A14	9/29/2010	H-16	12:35	13:26	0	300	Persulfate	15	13.5	75	51	51	5.88	
A14	10/5/2010	H-16	9:45	10:43	0	250	Persulfate	15	13.5	62.5	58	58	4.31	
A14	10/7/2010	H-16	11:47	12:15	0	115	Persulfate	15	13.5	28.75	28	28	4.11	
A14	10/13/2010	H-16	13:05	13:40	0	180	Catalyst	0.4% Fe			35	35	5.14	
A14	10/14/2010	H-16	15:42	16:05	0	100	Peroxide (MFR)	8			23	23	4.35	
A14	10/19/2010	H-16	10:31	11:17	0	200	Peroxide (MFR)	8			46	46	4.35	

Table 4-1
Area A - Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
A14	10/20/2010	H-16	9:14	9:36	0	60	Peroxide (MFR)	8			22	22	2.73	
A14	9/29/2010	H-17	11:19	12:10	0	300	Persulfate	15	13.5	75	51	51	5.88	
A14	10/1/2010	H-17	8:16	9:30	14	250	Persulfate	15	13.5	62.5	74	74	3.38	
A14	10/7/2010	H-17	10:02	10:35	10	115	Persulfate	15	13.5	28.75	33	33	3.48	
A14	10/13/2010	H-17	8:19	9:03	0	180	Catalyst	0.4% Fe			44	44	4.09	
A14	10/14/2010	H-17	14:32	15:36	0	150	Peroxide (MFR)	8			64	64	2.34	
A14	10/14/2010	H-17	16:01	16:18	0	50	Peroxide (MFR)	8			17	17	2.94	
A14	10/19/2010	H-17	11:05	13:16	0	100	Peroxide (MFR)	8			131	131	0.76	
A14	10/20/2010	H-17	10:52	11:22	0	60	Peroxide (MFR)	8			30	30	2.00	
A15	9/28/2010	H-19	13:23	14:40	20	300	Persulfate	15	13.5	75	77	77	3.90	
A15	10/4/2010	H-19	8:59	10:20	0	300	Persulfate	15	13.5	75	81	81	3.70	
A15	10/6/2010	H-19	14:20	15:29	0	240	Persulfate	15	13.5	60	69	69	3.48	
A15	10/13/2010	H-19	11:03	11:42	0	230	Catalyst	0.4% Fe			39	39	5.90	
A15	10/14/2010	H-19	9:43	10:13	8	50	Peroxide (MFR)	8			30	30	1.67	Breakout around F-17
A15	10/15/2010	H-19	14:18	15:37	0	200	Peroxide (MFR)	8			79	79	2.53	
A15	10/19/2010	H-19	13:45	14:46	0	210	Peroxide (MFR)	8			61	61	3.44	
A15	9/30/2010	H-21	8:22	9:22	0	300	Persulfate	15	13.5	75	60	60	5.00	
A15	10/6/2010	H-21	13:40	14:24	0	240	Persulfate	15	13.5	60	44	44	5.45	
A15	10/7/2010	H-21	8:30	9:31	0	300	Persulfate	15	13.5	75	61	61	4.92	
A15	10/18/2010	H-21	8:54	9:41	0	230	Catalyst	0.4% Fe			47	47	4.89	
A15	10/18/2010	H-21	10:47	12:04	0	200	Peroxide (MFR)	8			77	77	2.60	
A15	10/19/2010	H-21	13:53	14:45	0	200	Peroxide (MFR)	8			52	52	3.85	
A15	10/20/2010	H-21	9:56	10:10	0	60	Peroxide (MFR)	8			14	14	4.29	
A14	9/20/2010	I-10	12:12	13:42	4	100	Peroxide	8			90	90	1.11	
A14	9/21/2010	I-10	9:39	10:30	4	100	Peroxide	8			51	51	1.96	
A14	9/22/2010	I-10	7:20	7:49	0	100	Peroxide	8			29	29	3.45	
A14	9/23/2010	I-10	8:52	9:22	4	100	Peroxide	8			30	30	3.33	
A14	9/24/2010	I-10	7:46	8:16	0	100	Peroxide	8			30	30	3.33	
A14	9/27/2010	I-10	8:33	8:53	4	50	Peroxide	8			20	20	2.50	
A14	9/28/2010	I-10	11:43	12:44	10	300	Persulfate	15	13.5	75	61	61	4.92	
A14	9/30/2010	I-10	9:06	10:06	0	300	Persulfate	15	13.5	75	60	60	5.00	
A14	10/6/2010	I-10	14:12	14:58	0	200	Persulfate	15	13.5	50	46	46	4.35	
A14	10/13/2010	I-10	10:05	11:32	0	245	Catalyst	0.4% Fe			87	87	2.82	
A14	10/14/2010	I-10	14:41	15:41	10	200	Peroxide (MFR)	8			60	60	3.33	
A14	10/15/2010	I-10	13:50	14:32	0	100	Peroxide (MFR)	8			42	42	2.38	
A14	10/19/2010	I-10	14:49	15:43	0	190	Peroxide (MFR)	8			54	54	3.52	
A14	9/20/2010	I-11	13:55	14:46	2	100	Peroxide	8			51	51	1.96	
A14	9/21/2010	I-11	10:39	11:43	0	100	Peroxide	8			64	64	1.56	
A14	9/22/2010	I-11	10:32	11:38	0	100	Peroxide	8			66	66	1.52	
A14	9/23/2010	I-11	8:05	8:52	0	100	Peroxide	8			47	47	2.13	
A14	9/24/2010	I-11	8:19	9:10	0	100	Peroxide	8			51	51	1.96	
A14	9/27/2010	I-11	8:06	8:29	8	50	Peroxide	8			23	23	2.17	
A14	9/28/2010	I-11	13:38	14:48	12	300	Persulfate	15	13.5	75	70	70	4.29	
A14	9/30/2010	I-11	11:05	12:15	0	300	Persulfate	15	13.5	75	70	70	4.29	
A14	10/7/2010	I-11	9:23	10:29	0	200	Persulfate	15	13.5	50	66	66	3.03	

Table 4-1
Area A - Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
A14	10/13/2010	I-11	13:15	14:30	0	245	Catalyst	0.4% Fe			75	75	3.27	
A14	10/14/2010	I-11	11:39	14:08	0	200	Peroxide (MFR)	8			149	149	1.34	
A14	10/19/2010	I-11	12:07	14:31	8	290	Peroxide (MFR)	8			144	144	2.01	
A14	9/20/2010	I-13	10:10	10:45	17	30	Peroxide	8			35	35	0.86	Breakout around well casing
A14	9/21/2010	I-13	12:10	13:00	20	25	Peroxide	8			50	50	0.50	Breakout around well casing
A14	9/22/2010	I-13	9:19	12:19	12	125	Peroxide	8			180	180	0.69	
A14	9/23/2010	I-13	7:54	9:19	16	75	Peroxide	8			85	85	0.88	
A14	9/24/2010	I-13	7:40	11:49	20	175	Peroxide	8			249	249	0.70	
A14	9/27/2010	I-13	7:58	11:30	14	120	Peroxide	8			212	212	0.57	
A14	9/29/2010	I-13	8:46	10:53	22	300	Persulfate	15	13.5	75	127	127	2.36	
A14	10/4/2010	I-13	12:34	13:54	20	300	Persulfate	15	13.5	75	80	80	3.75	
A14	10/5/2010	I-13	11:45	12:58	6	200	Persulfate	15	13.5	50	73	73	2.74	
A14	10/13/2010	I-13	8:19	9:29	0	245	Catalyst	0.4% Fe			70	70	3.50	
A14	10/14/2010	I-13	9:40	10:19	20	25	Peroxide (MFR)	8			39	39	0.64	
A14	10/15/2010	I-13	12:34	13:35	10	25	Peroxide (MFR)	8			61	61	0.41	Breakout around well casing
A14	10/18/2010	I-13	10:24	11:28	10	100	Peroxide (MFR)	8			64	64	1.56	Breakout around well casing
A14	10/19/2010	I-13	8:51	10:56	8	200	Peroxide (MFR)	8			125	125	1.60	
A14	10/20/2010	I-13	8:20	10:31	8	140	Peroxide (MFR)	8			131	131	1.07	
A14	9/20/2010	I-14	14:22	15:32	5	100	Peroxide	8			70	70	1.43	
A14	9/21/2010	I-14	8:30	8:56	0	100	Peroxide	8			26	26	3.85	
A14	9/22/2010	I-14	10:11	10:41	4	100	Peroxide	8			30	30	3.33	
A14	9/23/2010	I-14	12:06	13:07	0	100	Peroxide	8			61	61	1.64	
A14	9/24/2010	I-14	10:06	10:38	0	100	Peroxide	8			32	32	3.13	
A14	9/27/2010	I-14	9:02	9:20	0	50	Peroxide	8			18	18	2.78	
A14	9/29/2010	I-14	12:41	13:31	5	300	Persulfate	8	13.5	75	50	50	6.00	
A14	10/4/2010	I-14	10:58	11:57	0	300	Persulfate	15	13.5	75	59	59	5.08	
A14	10/6/2010	I-14	13:35	14:09	0	150	Persulfate	15	13.5	37.5	34	34	4.41	
A14	10/7/2010	I-14	10:40	10:50	0	50	Persulfate	15	13.5	12.5	10	10	5.00	
A14	10/13/2010	I-14	10:50	11:32	0	245	Catalyst	0.4% Fe			42	42	5.83	
A14	10/14/2010	I-14	10:28	11:30	0	225	Peroxide (MFR)	8			62	62	3.63	
A14	10/19/2010	I-14	10:58	12:02	0	200	Peroxide (MFR)	8			64	64	3.13	
A14	10/20/2010	I-14	8:43	9:09	0	65	Peroxide (MFR)	8			26	26	2.50	
A14	9/28/2010	I-15	13:14	14:10	10	300	Persulfate	15	13.5	75	56	56	5.36	
A14	10/1/2010	I-15	9:18	10:35	0	300	Persulfate	15	13.5	75	77	77	3.90	
A14	10/6/2010	I-15	14:10	14:41	0	65	Persulfate	15	13.5	16.25	31	31	2.10	
A14	10/13/2010	I-15	13:24	14:20	0	180	Catalyst	0.4% Fe			56	56	3.21	
A14	10/14/2010	I-15	12:21	14:20	0	350	Peroxide (MFR)	8			119	119	2.94	
A14	10/19/2010	I-15	14:45	14:50	0	10	Peroxide (MFR)	8			5	5	2.00	
A14	9/28/2010	I-16	14:17	15:28	0	200	Persulfate	15	13.5	50	71	71	2.82	
A14	9/30/2010	I-16	10:20	11:35	0	300	Persulfate	15	13.5	75	75	75	4.00	
A14	10/7/2010	I-16	11:25	11:47	0	165	Persulfate	15	13.5	41.25	22	22	7.50	
A14	10/13/2010	I-16	11:54	12:25	0	180	Catalyst	0.4% Fe			31	31	5.81	

Table 4-1
Area A - Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
A14	10/14/2010	I-16	9:17	9:40	0	50	Peroxide (MFR)	8			23	23	2.17	Breakout around well casing
A14	10/15/2010	I-16	12:34	12:58	4	50	Peroxide (MFR)	8			24	24	2.08	Breakout around well casing
A14	10/18/2010	I-16	10:24	10:56	10	100	Peroxide (MFR)	8			32	32	3.13	Breakout around well casing
A14	10/19/2010	I-16	9:01	9:36	0	125	Peroxide (MFR)	8			35	35	3.57	
A14	10/20/2010	I-16	8:20	8:39	0	35	Peroxide (MFR)	8			19	19	1.84	
A14	9/29/2010	I-17	9:46	10:53	8	250	Persulfate	15	13.5	62.5	67	67	3.73	
A14	10/5/2010	I-17	9:52	11:00	0	300	Persulfate	15	13.5	75	68	68	4.41	
A14	10/7/2010	I-17	10:35	11:05	0	115	Persulfate	15	13.5	28.75	30	30	3.83	
A14	10/13/2010	I-17	12:28	13:15	0	180	Catalyst	0.4% Fe			47	47	3.83	
A14	10/14/2010	I-17	15:37	16:01	0	100	Peroxide (MFR)	8			24	24	4.17	
A14	10/19/2010	I-17	13:19	13:51	5	100	Peroxide (MFR)	8			32	32	3.13	
A14	10/20/2010	I-17	9:43	10:57	0	160	Peroxide (MFR)	8			74	74	2.16	
A15	9/20/2010	I-19	12:40	14:46	0	100	Peroxide	8			126	126	0.79	
A15	9/21/2010	I-19	9:09	10:02	0	100	Peroxide	8			53	53	1.89	
A15	9/22/2010	I-19	9:25	10:25	0	100	Peroxide	8			60	60	1.67	
A15	9/23/2010	I-19	8:59	10:31	0	100	Peroxide	8			92	92	1.09	
A15	9/24/2010	I-19	9:08	9:52	0	100	Peroxide	8			44	44	2.27	
A15	9/27/2010	I-19	9:12	9:49	0	90	Peroxide	8			37	37	2.43	
A15	9/30/2010	I-19	9:58	11:42	0	300	Persulfate	15	13.5	75	104	104	2.88	
A15	10/4/2010	I-19	10:57	12:37	0	300	Persulfate	15	13.5	75	100	100	3.00	
A15	10/5/2010	I-19	11:08	12:50	4	250	Persulfate	15	13.5	62.5	102	102	2.45	
A15	10/13/2010	I-19	10:40	11:50	0	265	Catalyst	0.4% Fe			70	70	3.79	
A15	10/14/2010	I-19	8:23	9:30	4	175	Peroxide (MFR)	8			67	67	2.61	
A15	10/15/2010	I-19	12:58	14:15	0	200	Peroxide (MFR)	8			77	77	2.60	
A15	10/19/2010	I-19	9:45	10:31	0	155	Peroxide (MFR)	8			46	46	3.37	
A15	9/20/2010	I-21	11:38	12:33	0	100	Peroxide	8			55	55	1.82	
A15	9/21/2010	I-21	8:30	9:06	12	100	Peroxide	8			36	36	2.78	
A15	9/22/2010	I-21	8:51	9:20	0	100	Peroxide	8			29	29	3.45	
A15	9/23/2010	I-21	8:00	8:35	0	100	Peroxide	8			35	35	2.86	
A15	9/24/2010	I-21	8:27	9:02	0	100	Peroxide	8			35	35	2.86	
A15	9/27/2010	I-21	8:58	9:26	0	90	Peroxide	8			28	28	3.21	
A15	9/28/2010	I-21	11:11	12:06	0	300	Persulfate	15	13.5	75	55	55	5.45	
A15	10/1/2010	I-21	9:35	10:20	0	300	Persulfate	15	13.5	75	45	45	6.67	
A15	10/4/2010	I-21	9:33	10:24	0	250	Persulfate	15	13.5	62.5	51	51	4.90	
A15	10/18/2010	I-21	8:54	9:50	0	270	Catalyst	0.4% Fe			56	56	4.82	
A15	10/18/2010	I-21	11:34	12:38	0	200	Peroxide (MFR)	8			64	64	3.13	
A15	10/19/2010	I-21	13:14	14:17	0	200	Peroxide (MFR)	8			63	63	3.17	
A15	10/20/2010	I-21	10:19	10:52	0	130	Peroxide (MFR)	8			33	33	3.94	
A15	9/20/2010	I-22	13:20	13:58	0	100	Peroxide	8			38	38	2.63	
A15	9/21/2010	I-22	9:58	10:37	0	100	Peroxide	8			39	39	2.56	
A15	9/22/2010	I-22	8:17	8:48	0	100	Peroxide	8			31	31	3.23	
A15	9/23/2010	I-22	9:15	9:48	0	100	Peroxide	8			33	33	3.03	
A15	9/24/2010	I-22	7:54	8:22	0	100	Peroxide	8			28	28	3.57	
A15	9/27/2010	I-22	8:32	9:07	0	90	Peroxide	8			35	35	2.57	

Table 4-1
Area A - Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
A15	9/29/2010	I-22	10:00	11:05	0	300	Persulfate	15	13.5	75	65	65	4.62	
A15	10/4/2010	I-22	13:10	13:57	0	300	Persulfate	15	13.5	75	47	47	6.38	
A15	10/5/2010	I-22	12:52	13:05	0	50	Persulfate	15	13.5	12.5	13	13	3.85	
A15	10/6/2010	I-22	15:20	15:40	0	90	Persulfate	15	13.5	22.5	20	20	4.50	
A15	10/7/2010	I-22	9:24	9:45	0	110	Persulfate	15	13.5	27.5	21	21	5.24	
A15	10/13/2010	I-22	14:22	14:40	0	35	Catalyst	0.4% Fe			18	18	1.94	
A15	10/18/2010	I-22	8:54	10:00	0	235	Catalyst	0.4% Fe			66	66	3.56	
A15	10/18/2010	I-22	11:40	12:42	0	175	Peroxide (MFR)	8			62	62	2.82	
A15	10/19/2010	I-22	9:50	11:01	0	250	Peroxide (MFR)	8			71	71	3.52	
A15	10/20/2010	I-22	9:43	10:13	0	105	Peroxide (MFR)	8			30	30	3.50	
A14	9/28/2010	J-15	9:16	10:15	6	300	Persulfate	15	13.5	75	59	59	5.08	
A14	10/1/2010	J-15	8:02	8:55	0	300	Persulfate	15	13.5	75	53	53	5.66	
A14	10/5/2010	J-15	11:16	11:59	0	200	Persulfate	15	13.5	50	43	43	4.65	
A14	10/13/2010	J-15	9:47	10:36	0	245	Catalyst	0.4% Fe			49	49	5.00	
A14	10/14/2010	J-15	14:32	15:50	5	200	Peroxide (MFR)	8			78	78	2.56	
A14	10/19/2010	J-15	11:07	12:20	0	290	Peroxide (MFR)	8			73	73	3.97	
A15	9/28/2010	J-20	9:16	11:09	4	100	Persulfate	15	13.5	25	113	113	0.88	Breakout
A15	9/29/2010	J-20	8:51	9:42	0	50	Persulfate	15	13.5	12.5	51	51	0.98	
A15	10/1/2010	J-20	7:49	8:15	0	50	Persulfate	15	13.5	12.5	26	26	1.92	Breakout
A15	10/4/2010	J-20	8:49	9:30	0	50	Persulfate	15	13.5	12.5	41	41	1.22	Breakout
A15	10/5/2010	J-20	8:25	9:43	0	50	Persulfate	15	13.5	12.5	78	78	0.64	
A15	10/6/2010	J-20	13:35	14:05	0	60	Persulfate	15	13.5	15	30	30	2.00	
A15	10/7/2010	J-20	8:30	8:52	0	40	Persulfate	15	13.5	10	22	22	1.82	
A15	10/13/2010	J-20	8:27	9:14	0	150	Catalyst	0.4% Fe			47	47	3.19	
A15	10/14/2010	J-20	8:00	8:22	4	25	Peroxide (MFR)	8			22	22	1.14	Breakout
A15	10/15/2010	J-20	12:34	13:42	0	25	Peroxide (MFR)	8			68	68	0.37	Breakout
A15	10/18/2010	J-20	10:23	10:40	0	25	Peroxide (MFR)	8			17	17	1.47	Breakout
A15	10/19/2010	J-20	8:57	9:43	0	75	Peroxide (MFR)	8			46	46	1.63	Breakout
A15	10/20/2010	J-20	8:20	9:59	0	150	Peroxide (MFR)	8			99	99	1.52	
A15	9/20/2010	J-22	11:22	12:36	15	100	Peroxide	8			74	74	1.35	
A15	9/21/2010	J-22	9:19	9:55	0	100	Peroxide	8			36	36	2.78	
A15	9/22/2010	J-22	10:02	10:30	0	100	Peroxide	8			28	28	3.57	
A15	9/23/2010	J-22	8:09	8:34	0	100	Peroxide	8			25	25	4.00	
A15	9/24/2010	J-22	10:27	11:00	0	100	Peroxide	8			33	33	3.03	
A15	9/27/2010	J-22	7:58	8:26	0	90	Peroxide	8			28	28	3.21	
A15	9/28/2010	J-22	13:08	14:14	0	300	Persulfate	15	13.5	75	66	66	4.55	
A15	10/4/2010	J-22	13:14	13:52	0	300	Persulfate	15	13.5	75	38	38	7.89	
A15	10/7/2010	J-22	9:53	10:40	0	250	Persulfate	15	13.5	62.5	47	47	5.32	
A15	10/13/2010	J-22	10:00	10:57	0	265	Catalyst	0.4% Fe			57	57	4.65	
A15	10/14/2010	J-22	10:11	12:15	6	200	Peroxide (MFR)	8			124	124	1.61	
A15	10/18/2010	J-22	12:05	12:45	0	75	Peroxide (MFR)	8			40	40	1.88	
A15	10/19/2010	J-22	15:06	16:09	0	255	Peroxide (MFR)	8			63	63	4.05	
A15	9/20/2010	J-23	12:40	13:16	0	100	Peroxide	8			36	36	2.78	
A15	9/21/2010	J-23	8:30	9:12	0	100	Peroxide	8			42	42	2.38	
A15	9/22/2010	J-23	9:32	10:00	0	100	Peroxide	8			28	28	3.57	
A15	9/23/2010	J-23	8:39	9:10	0	100	Peroxide	8			31	31	3.23	
A15	9/24/2010	J-23	11:06	11:40	0	100	Peroxide	8			34	34	2.94	

Table 4-1
Area A - Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
A15	9/27/2010	J-23	8:32	9:00	0	90	Peroxide	8			28	28	3.21	
A15	9/29/2010	J-23	12:15	13:28	0	300	Persulfate	15	13.5	75	73	73	4.11	
A15	10/4/2010	J-23	10:03	11:04	0	300	Persulfate	15	13.5	75	61	61	4.92	
A15	10/5/2010	J-23	12:04	12:32	0	100	Persulfate	15	13.5	25	28	28	3.57	
A15	10/7/2010	J-23	8:52	9:23	0	150	Persulfate	15	13.5	37.5	31	31	4.84	
A15	10/18/2010	J-23	8:54	9:54	0	265	Catalyst	0.4% Fe			60	60	4.42	
A15	10/18/2010	J-23	10:58	11:53	0	200	Peroxide (MFR)	8			55	55	3.64	
A15	10/19/2010	J-23	12:26	12:56	0	130	Peroxide (MFR)	8			30	30	4.33	
A15	10/20/2010	J-23	10:42	11:40	0	200	Peroxide (MFR)	8			58	58	3.45	
A15	9/28/2010	K-20	11:24	12:26	0	300	Persulfate	15	13.5	75	62	62	4.84	
A15	10/4/2010	K-20	11:40	12:40	4	300	Persulfate	15	13.5	75	60	60	5.00	
A15	10/6/2010	K-20	14:11	15:07	0	240	Persulfate	15	13.5	60	56	56	4.29	
A15	10/14/2010	K-20	13:15	14:25	0	200	Peroxide (MFR)	8			70	70	2.86	
A15	10/15/2010	K-20	13:45	14:45	5	200	Peroxide (MFR)	8			60	60	3.33	
A15	10/19/2010	K-20	14:21	14:32	0	60	Peroxide (MFR)	8			11	11	5.45	
A15	9/28/2010	K-22	9:16	10:32	4	300	Persulfate	15	13.5	75.00	76	76	3.95	
A15	10/1/2010	K-22	9:06	10:15	10	300	Persulfate	15	13.5	75.00	69	69	4.35	
A15	10/7/2010	K-22	10:41	11:38	0	240	Persulfate	15	13.5	60.00	57	57	4.21	
A15	10/14/2010	K-22	12:20	13:15	0	200	Peroxide (MFR)	8			55	55	3.64	
A15	10/19/2010	K-22	13:37	14:48	0	175	Peroxide (MFR)	8			71	71	2.46	
A15	10/20/2010	K-22	9:00	9:36	0	85	Peroxide (MFR)	8			36	36	2.36	
A13	10/7/2010	F-10	11:30	12:05	0	185	Persulfate	15	13.5	46.25	35	35	5.29	

Area A	# of Days	Number of Wells	Average Pressure (psi)	Total Injection Volume (gal.)	Average pH	Total Volume of Caustic (Gal.)	Average Inj. Time (min.)	Average Flow Rate (gal/min.)
Totals:	**21**	**35**	**2.76**	**56,140**	**13.5**	**6,375**	**60**	**3.19**

Injection Type	Number of Wells	Average Injection Rate (gpm)	Total Volume (gal)	Average Injection Pressure (psi)
Peroxide	**13**	**2.04**	**7,350**	**4.76**
Persulfate	**35**	**4.12**	**25,800**	**2.69**
Catalyst	**32**	**4.16**	**7,370**	**2.69**
Peroxide (MFR)	**34**	**2.77**	**15,620**	**2.20**

Note:

Bold Text Indicates Total Injection Volume for that Individual Well

Table 4-1
Area A - Injection Summary Table by Date - 2010
Ottati Goss Superfund Site

Area	Well ID	Persulfate Vol. per Well (gal.)	Persulfate Concentration (%)	Caustic Vol. per Well (gal.)	Catalyst Vol. per Well (gal.)	Peroxide Vol. per Well (gal.)	Peroxide Concentration (%)
A11	D-02	880	15	220	300	600	8
A11	D-03	880	15	220	300	600	8
A11	D-04	450	15	112.5	150	300	8
A11	F-02	880	15	220	300	600	8
A11	F-03	880	15	220	300	600	8
A11	F-04	880	15	220	300	600	8
A11	ME-IAS	450	15	112.5	150	300	8
A11	ME-IAD	450	15	112.5	150	300	8
A13	F-10	185	15	46.25	0	0	N/A
A14	H-10	800	15	200	245	1040	8
A14	H-11	800	15	200	245	1040	8
A14	H-12	800	15	200	245	1040	8
A14	H-13	800	15	200	245	1040	8
A14	H-14	665	15	166.25	180	360	8
A14	H-15	665	15	166.25	190	360	8
A14	H-16	665	15	166.25	180	360	8
A14	H-17	665	15	166.25	180	360	8
A14	I-10	800	15	200	245	1040	8
A14	I-11	800	15	200	245	1040	8
A14	I-13	800	15	200	245	1040	8
A14	I-14	800	15	200	245	1040	8
A14	I-15	665	15	166.25	180	360	8
A14	I-16	665	15	166.25	180	360	8
A14	I-17	665	15	166.25	180	360	8
A14	J-15	800	15	200	245	490	8
A15	H-19	840	15	210	230	460	8
A15	H-21	840	15	210	230	460	8
A15	I-19	850	15	212.5	265	1120	8
A15	I-21	850	15	212.5	270	1120	8
A15	I-22	850	15	212.5	270	1120	8
A15	J-20	400	15	100	150	300	8
A15	J-22	850	15	212.5	265	1120	8
A15	J-23	850	15	212.5	265	1120	8
A15	K-20	840	15	210	0	460	8
A15	K-22	840	15	210	0	460	8

Summary					
Injection Area	**Number of Wells**	**Total Volume of Persulfate (gal.)**	**Total Volume of Caustic (gal.)**	**Total Volume of Catalyst (gal.)**	**Total Volume of Peroxide (gal.)**
A11	8	5,750	1,437.5	1,950	3900
A13	1	185	46.25	0	0
A14	16	11,855	2,963.75	3,475	11330
A15	10	8,010	2,002.5	1,945	7740
TOTAL	35	25,800	6,450	7,370	22,970

Table 4-3
Area B – Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
B11	9/28/2010	F-03S	11:13	12:08	0	100	Persulfate	15	13.5	25	55	55	1.82	
B11	9/29/2010	F-03S	12:40	13:20	5	80	Persulfate	15	13.5	20	40	40	2.00	
B11	9/30/2010	F-03S	11:57	12:54	0	75	Persulfate	15	13.5	18.75	57	57	1.32	
B11	10/4/2010	F-03S	10:54	11:50	0	100	Persulfate	15	13.5	25	56	56	1.79	
B11	10/5/2010	F-03S	13:20	13:30	0	30	Persulfate	15	13.5	7.5	10	10	3.00	
B11	10/6/2010	F-03S	11:10	11:22	0	15	Persulfate	15	13.5	3.75	12	12	1.25	
B11	10/12/2010	F-03S	11:20	11:57	0	65	Catalyst	0.8% Fe			37	37	1.76	
B11	10/14/2010	F-03S	13:55	15:25	8	60	Peroxide (MFR)	12			90	90	0.67	
B11	10/15/2010	F-03S	10:16	11:10	5	45	Peroxide (MFR)	12			54	54	0.83	
B11	10/18/2010	F-03S	12:20	13:30	8	40	Peroxide (MFR)	12			70	70	0.57	
B11	10/19/2010	F-03S	9:54	11:00	8	35	Peroxide (MFR)	12			66	66	0.53	
B11	9/28/2010	G-04S	10:12	11:12	0	100	Persulfate	15	13.5	25	60	60	1.67	
B11	9/29/2010	G-04S	13:21	14:11	0	70	Persulfate	15	13.5	17.5	50	50	1.40	
B11	9/30/2010	G-04S	11:02	11:56	0	80	Persulfate	15	13.5	20	54	54	1.48	
B11	10/4/2010	G-04S	11:50	13:15	0	100	Persulfate	15	13.5	25	85	85	1.18	
B11	10/5/2010	G-04S	14:54	15:20	0	50	Persulfate	15	13.5	12.5	26	26	1.92	
B11	10/13/2010	G-04S	8:30	9:18	0	65	Catalyst	0.8% Fe			48	48	1.35	
B11	10/14/2010	G-04S	15:25	16:23	8	45	Peroxide (MFR)	12			58	58	0.78	
B11	10/15/2010	G-04S	9:36	10:16	6	40	Peroxide (MFR)	12			40	40	1.00	
B11	10/18/2010	G-04S	10:12	11:00	5	55	Peroxide (MFR)	12			48	48	1.15	
B11	10/19/2010	G-04S	11:58	12:40	5	40	Peroxide (MFR)	12			42	42	0.95	
B11	9/28/2010	I-04S	12:18	13:32	0	110	Persulfate	15	13.5	27.5	74	74	1.49	
B11	9/29/2010	I-04S	10:48	11:13	10	25	Persulfate	15	13.5	6.25	25	25	1.00	Breakout
B11	9/30/2010	I-04S	10:03	10:20	10	15	Persulfate	15	13.5	3.75	17	17	0.88	Breakout
B11	10/4/2010	I-04S	10:30	10:52	12	40	Persulfate	15	13.5	10	22	22	1.82	Breakout
B11	10/6/2010	I-04S	10:03	11:17	14	80	Persulfate	15	13.5	20	74	74	1.08	Breakout
B11	10/7/2010	I-04S	10:13	10:20	10	10	Persulfate	15	13.5	2.5	7	7	1.43	
B11	10/12/2010	I-04S	12:00	13:00	0	65	Catalyst	0.8% Fe			60	60	1.08	
B11	10/14/2010	I-04S	9:30	11:27	8	70	Peroxide (MFR)	12			117	117	0.60	Breakout
B11	10/15/2010	I-04S	10:10	10:20	5	5	Peroxide (MFR)	12			10	10	0.50	Breakout
B11	10/18/2010	I-04S	8:55	9:20	2	15	Peroxide (MFR)	12			25	25	0.60	Breakout
B11	10/19/2010	I-04S	8:30	9:54	8	45	Peroxide (MFR)	12			84	84	0.54	
B11	10/20/2010	I-04S	8:10	9:22	5	70	Peroxide (MFR)	8			72	72	0.97	Breakout
B11	9/28/2010	J-05	13:37	14:27	0	100	Persulfate	15	13.5	25	50	50	2.00	
B11	9/29/2010	J-05	11:51	12:51	0	100	Persulfate	15	13.5	25	60	60	1.67	
B11	10/4/2010	J-05	9:45	10:45	0	100	Persulfate	15	13.5	25	60	60	1.67	
B11	10/5/2010	J-05	15:08	15:50	0	100	Persulfate	15	13.5	25	42	42	2.38	
B11	10/13/2010	J-05	8:30	9:34	0	65	Catalyst	0.8% Fe			64	64	1.02	
B11	10/14/2010	J-05	12:53	14:34	12	90	Peroxide (MFR)	12			101	101	0.89	
B11	10/15/2010	J-05	11:08	12:45	6	45	Peroxide (MFR)	12			97	97	0.46	
B11	10/18/2010	J-05	9:47	10:04	5	25	Peroxide (MFR)	12			17	17	1.47	
B11	10/19/2010	J-05	9:56	10:36	10	20	Peroxide (MFR)	12			40	40	0.50	Breakout

Watermark

Table 4-3
Area B – Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
B11	9/28/2010	K-04S	11:32	12:26	0	100	Persulfate	15	13.5	25	54	54	1.85	
B11	9/30/2010	K-04S	9:48	10:54	2	100	Persulfate	15	13.5	25	66	66	1.52	
B11	10/4/2010	K-04S	10:52	12:10	4	100	Persulfate	15	13.5	25	78	78	1.28	
B11	10/5/2010	K-04S	14:36	14:53	5	40	Persulfate	15	13.5	10	17	17	2.35	Breakout
B11	10/6/2010	K-04S	11:17	11:36	2	20	Persulfate	15	13.5	5	19	19	1.05	Breakout
B11	10/12/2010	K-04S	12:15	13:25	0	65	Catalyst	0.8% Fe			70	70	0.93	
B11	10/14/2010	K-04S	9:54	12:15	5	90	Peroxide (MFR)	12			141	141	0.64	
B11	10/15/2010	K-04S	12:48	13:18	5	20	Peroxide (MFR)	12			30	30	0.67	
B11	10/18/2010	K-04S	9:20	10:12	8	40	Peroxide (MFR)	12			52	52	0.77	
B11	10/19/2010	K-04S	11:22	12:40	6	30	Peroxide (MFR)	12			78	78	0.38	Breakout
B11	9/28/2010	L-03D	11:08	12:18	0	100	Persulfate	15	13.5	25	70	70	1.43	
B11	9/29/2010	L-03D	11:41	12:30	5	40	Persulfate	15	13.5	10	49	49	0.82	
B11	9/30/2010	L-03D	10:55	12:07	5	100	Persulfate	15	13.5	25	72	72	1.39	
B11	10/4/2010	L-03D	11:50	13:05	5	100	Persulfate	15	13.5	25	75	75	1.33	
B11	10/6/2010	L-03D	10:00	11:10	8	125	Persulfate	15	13.5	31.25	70	70	1.79	
B11	10/7/2010	L-03D	9:17	10:25	8	95	Persulfate	15	13.5	23.75	68	68	1.40	
B11	10/13/2010	L-03D	9:20	10:20	6	65	Catalyst	0.8% Fe			60	60	1.08	
B11	10/14/2010	L-03D	11:10	12:05	20	25	Peroxide (MFR)	12			55	55	0.45	Breakout
B11	10/15/2010	L-03D	10:09	10:46	10	20	Peroxide (MFR)	12			37	37	0.54	Breakout
B11	10/18/2010	L-03D	9:02	9:40	20	15	Peroxide (MFR)	12			38	38	0.39	Breakout
B11	10/19/2010	L-03D	8:58	9:08	20	10	Peroxide (MFR)	12			10	10	1.00	Breakout
B11	10/20/2010	L-03D	8:48	9:06	15	15	Peroxide (MFR)	8			18	18	0.83	Breakout
B11	9/28/2010	L-05	12:26	13:36	10	100	Persulfate	15	13.5	25	70	70	1.43	
B11	9/29/2010	L-05	12:56	14:30	5	100	Persulfate	15	13.5	25	94	94	1.06	
B11	10/4/2010	L-05	10:52	12:10	6	100	Persulfate	15	13.5	25	78	78	1.28	
B11	10/5/2010	L-05	14:02	15:10	6	100	Persulfate	15	13.5	25	68	68	1.47	
B11	10/13/2010	L-05	9:34	10:20	0	65	Catalyst	0.8% Fe			46	46	1.41	
B11	10/14/2010	L-05	14:57	15:14	26	10	Peroxide (MFR)	12			17	17	0.59	
B11	10/15/2010	L-05	9:35	10:08	15	20	Peroxide (MFR)	12			33	33	0.61	Breakout
B11	10/18/2010	L-05	9:24	9:47	6	15	Peroxide (MFR)	12			23	23	0.65	Breakout
B11	10/19/2010	L-05	9:08	9:56	9	30	Peroxide (MFR)	12			48	48	0.62	Breakout
B11	10/20/2010	L-05	9:30	10:30	5	50	Peroxide (MFR)	8			60	60	0.83	Breakout
B11	9/20/2010	H-03	12:58	14:14	10	40	Peroxide	8			76	76	0.53	
B11	9/21/2010	H-03	9:32	11:00	10	40	Peroxide	8			88	88	0.45	
B11	9/22/2010	H-03	8:42	10:06	10	40	Peroxide	8			84	84	0.48	
B11	9/23/2010	H-03	9:02	10:50	10	40	Peroxide	8			108	108	0.37	
B11	9/24/2010	H-03	8:23	9:37	10	40	Peroxide	8			74	74	0.54	
B11	9/27/2010	H-03	9:34	10:32	10	40	Peroxide	8			58	58	0.69	
B11	9/28/2010	H-03	12:08	13:30	5	100	Persulfate	15	13.5	25	82	82	1.22	
B11	9/29/2010	H-03	11:13	12:39	10	100	Persulfate	15	13.5	25	86	86	1.16	
B11	9/30/2010	H-03	10:21	11:01	4	50	Persulfate	15	13.5	12.5	40	40	1.25	

Table 4-3
Area B – Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
B11	10/5/2010	H-03	13:44	14:35	4	100	Persulfate	15	13.5	25	51	51	1.96	
B11	10/12/2010	H-03	12:00	12:50	0	50	Catalyst	0.8% Fe			50	50	1.00	
B11	10/14/2010	H-03	9:19	10:10	0	40	Peroxide (MFR)	12			51	51	0.78	
B11	10/15/2010	H-03	12:13	12:53	0	35	Peroxide (MFR)	12			40	40	0.88	
B11	10/18/2010	H-03	11:12	12:20	0	35	Peroxide (MFR)	12			68	68	0.51	
B11	10/19/2010	H-03	11:12	11:58	0	30	Peroxide (MFR)	12			46	46	0.65	
B11	10/20/2010	H-03	9:38	10:10	0	30	Peroxide (MFR)	8			32	32	0.94	
B11	9/20/2010	J-03M	11:52	12:18	10	10	Peroxide	8			26	26	0.38	Breakout
B11	9/21/2010	J-03M	8:20	8:56	10	15	Peroxide	8			36	36	0.42	Breakout
B11	9/22/2010	J-03M	7:40	8:08	10	10	Peroxide	8			28	28	0.36	Breakout
B11	9/23/2010	J-03M	7:45	8:17	5	10	Peroxide	8			32	32	0.31	Breakout
B11	9/24/2010	J-03M	7:32	7:45	5	5	Peroxide	8			13	13	0.38	Breakout
B11	9/27/2010	J-03M	8:00	8:15	5	5	Peroxide	8			15	15	0.33	Breakout
B11	9/28/2010	J-03M	10:47	11:07	5	10	Persulfate	15	13.5	2.5	20	20	0.50	Breakout
B11	9/29/2010	J-03M	8:53	9:08	8	10	Persulfate	15	13.5	2.5	15	15	0.67	Breakout
B11	9/30/2010	J-03M	8:12	8:29	5	10	Persulfate	15	13.5	2.5	17	17	0.59	Breakout
B11	10/4/2010	J-03M	9:05	9:25	5	15	Persulfate	15	13.5	3.75	20	20	0.75	Breakout
B11	10/6/2010	J-03M	8:50	9:00	2	2	Persulfate	15	13.5	0.50	10	10	0.20	Breakout
B11	10/7/2010	J-03M	8:22	8:32	4	5	Persulfate	15	13.5	1.25	10	10	0.50	Breakout
B11	10/14/2010	J-03M	9:25	9:47	8	10	Peroxide (MFR)	12			22	22	0.45	Breakout
B11	10/15/2010	J-03M	8:30	8:50	6	10	Peroxide (MFR)	12			20	20	0.50	Breakout
B11	10/18/2010	J-03M	8:50	9:02	8	5	Peroxide (MFR)	12			12	12	0.42	Breakout
B11	10/19/2010	J-03M	8:30	8:40	6	5	Peroxide (MFR)	12			10	10	0.50	Breakout
B11	9/28/2010	M-02	9:00	10:22	10	70	Persulfate	15	13.5	17.5	82	82	0.85	Breakout
B11	9/29/2010	M-02	8:34	8:52	5	20	Persulfate	15	13.5	5	18	18	1.11	Breakout
B11	9/30/2010	M-02	8:30	8:57	5	20	Persulfate	15	13.5	5	27	27	0.74	Breakout
B11	10/4/2010	M-02	9:25	9:38	6	10	Persulfate	15	13.5	2.5	13	13	0.77	Breakout
B11	10/6/2010	M-02	9:00	9:20	4	15	Persulfate	15	13.5	3.75	20	20	0.75	Breakout
B11	10/7/2010	M-02	8:32	8:50	5	10	Persulfate	15	13.5	2.5	18	18	0.56	Breakout
B11	9/20/2010	ME-BIS	13:06	14:17	10	40	Peroxide	8			71	71	0.56	
B11	9/21/2010	ME-BIS	12:30	13:10	10	40	Peroxide	8			40	40	1.00	
B11	9/22/2010	ME-BIS	10:51	12:11	10	40	Peroxide	8			80	80	0.50	
B11	9/23/2010	ME-BIS	10:37	12:04	10	40	Peroxide	8			87	87	0.46	
B11	9/24/2010	ME-BIS	9:48	11:15	10	40	Peroxide	8			87	87	0.46	
B11	9/27/2010	ME-BIS	10:16	11:02	10	40	Peroxide	8			46	46	0.87	
B11	9/29/2010	ME-BIS	11:01	12:21	5	70	Persulfate	15	13.5	17.5	80	80	0.88	
B11	9/30/2010	ME-BIS	12:37	13:27	5	80	Persulfate	15	13.5	20	50	50	1.60	
B11	10/4/2010	ME-BIS	12:20	12:50	8	40	Persulfate	15	13.5	10	30	30	1.33	
B11	10/6/2010	ME-BIS	9:20	9:36	5	10	Persulfate	15	13.5	2.5	16	16	0.63	Breakout
B11	10/12/2010	ME-BIS	11:34	12:01	5	50	Catalyst	0.8% Fe			27	27	1.85	
B11	10/14/2010	ME-BIS	9:54	10:03	5	5	Peroxide (MFR)	12			9	9	0.56	Breakout
B11	10/15/2010	ME-BIS	8:30	8:59	4	15	Peroxide (MFR)	12			29	29	0.52	Breakout

Table 4-3
Area B – Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
B11	10/18/2010	ME-BIS	9:06	9:17	5	10	Peroxide (MFR)	12			11	11	0.91	Breakout
B11	10/19/2010	ME-BIS	9:18	9:30	6	5	Peroxide (MFR)	12			12	12	0.42	Breakout
B11	10/20/2010	ME-BIS	9:06	9:16	5	5	Peroxide (MFR)	8			10	10	0.50	Breakout
B11	9/20/2010	N-03S	10:05	11:23	15	30	Peroxide	8			78	78	0.38	Breakout around nearby well
B11	9/21/2010	N-03S	9:38	10:40	10	50	Peroxide	8			62	62	0.81	
B11	9/22/2010	N-03S	9:12	10:50	10	40	Peroxide	8			98	98	0.41	
B11	9/23/2010	N-03S	9:13	10:35	10	40	Peroxide	8			82	82	0.49	
B11	9/24/2010	N-03S	8:50	9:45	10	40	Peroxide	8			55	55	0.73	
B11	9/27/2010	N-03S	9:25	10:15	10	40	Peroxide	8			50	50	0.80	
B11	9/29/2010	N-03S	9:40	11:40	15	100	Persulfate	15	13.5	25	120	120	0.83	
B11	10/4/2010	N-03S	9:50	10:47	15	100	Persulfate	15	13.5	25	57	57	1.75	
B11	10/5/2010	N-03S	14:37	15:15	15	100	Persulfate	15	13.5	25	38	38	2.63	
B11	10/7/2010	N-03S	9:50	10:05	15	15	Persulfate	15	13.5	3.75	15	15	1.00	Breakout
B11	10/12/2010	N-03S	13:15	14:00	0	50	Catalyst	0.8% Fe			45	45	1.11	
B11	10/14/2010	N-03S	9:20	9:45	10	10	Peroxide (MFR)	12			25	25	0.40	Breakout
B11	10/15/2010	N-03S	10:00	10:09	8	5	Peroxide (MFR)	12			9	9	0.56	Breakout
B11	10/18/2010	N-03S	8:57	9:06	5	5	Peroxide (MFR)	12			9	9	0.56	Breakout
B11	10/19/2010	N-03S	8:40	8:49	6	5	Peroxide (MFR)	12			9	9	0.56	Breakout
B11	10/20/2010	N-03S	8:22	8:33	5	5	Peroxide (MFR)	8			11	11	0.45	Breakout
B11	9/28/2010	O-02S	10:23	12:10	5	100	Persulfate	15	13.5	25	107	107	0.93	
B11	9/29/2010	O-02S	9:09	9:39	0	30	Persulfate	15	13.5	7.5	30	30	1.00	Breakout
B11	9/30/2010	O-02S	8:58	9:54	0	50	Persulfate	15	13.5	12.5	56	56	0.89	Breakout
B11	10/4/2010	O-02S	9:38	9:55	0	15	Persulfate	15	13.5	3.75	17	17	0.88	Breakout
B11	10/6/2010	O-02S	9:36	9:48	0	10	Persulfate	15	13.5	2.5	12	12	0.83	Breakout
B11	10/12/2010	O-02S	10:50	11:05	10	10	Catalyst	0.8% Fe			15	15	0.67	Breakout
B11	10/13/2010	O-02S	8:30	8:50	0	15	Catalyst	0.8% Fe			20	20	0.75	
B11	10/14/2010	O-02S	10:05	10:25	10	10	Peroxide (MFR)	12			20	20	0.50	Breakout
B11	10/15/2010	O-02S	9:50	10:00	5	5	Peroxide (MFR)	12			10	10	0.50	Breakout
B11	10/18/2010	O-02S	8:50	8:57	4	5	Peroxide (MFR)	12			7	7	0.71	Breakout
B11	10/19/2010	O-02S	8:30	8:40	5	5	Peroxide (MFR)	12			10	10	0.50	Breakout
B11	10/20/2010	O-02S	8:10	8:22	5	5	Peroxide (MFR)	8			12	12	0.42	Breakout
B11	9/20/2010	ME-BO1D	11:30	11:55	10	10	Peroxide	8			25	25	0.40	Breakout around nearby well
B11	9/21/2010	ME-BO1D	8:20	9:36	15	25	Peroxide	8			76	76	0.33	
B11	9/22/2010	ME-BO1D	7:40	9:07	15	40	Peroxide	8			87	87	0.46	Breakout around nearby well
B11	9/23/2010	ME-BO1D	7:45	9:10	15	40	Peroxide	8			85	85	0.47	
B11	9/24/2010	ME-BO1D	7:32	9:24	15	70	Peroxide	8			112	112	0.63	
B11	9/27/2010	ME-BO1D	8:00	9:24	15	55	Peroxide	8			84	84	0.65	
B11	9/28/2010	ME-BO1D	12:53	13:57	10	70	Persulfate	15	13.5	17.5	64	64	1.09	
B11	9/30/2010	ME-BO1D	9:55	11:20	10	60	Persulfate	15	13.5	15	85	85	0.71	

Table 4-3
Area B – Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
B11	10/4/2010	ME-BO1D	9:55	11:06	10	60	Persulfate	15	13.5	15	71	71	0.85	
B11	10/5/2010	ME-BO1D	13:39	14:37	25	100	Persulfate	15	13.5	25	58	58	1.72	
B11	10/6/2010	ME-BO1D	10:14	11:34	10	75	Persulfate	15	13.5	18.75	80	80	0.94	Breakout
B11	10/12/2010	ME-BO1D	10:50	11:34	5	25	Catalyst	0.8% Fe			44	44	0.57	
B11	10/14/2010	ME-BO1D	10:25	11:10	4	15	Peroxide (MFR)	12			45	45	0.33	Breakout
B11	10/15/2010	ME-BO1D	8:59	9:23	5	15	Peroxide (MFR)	12			24	24	0.62	
B11	10/18/2010	ME-BO1D	9:40	10:05	10	10	Peroxide (MFR)	12			25	25	0.40	Breakout
B11	10/19/2010	ME-BO1D	8:49	8:58	7	5	Peroxide (MFR)	12			9	9	0.56	Breakout
B11	10/20/2010	ME-BO1D	8:33	8:48	5	10	Peroxide (MFR)	8			15	15	0.67	Breakout
B11	**TOTAL**	**ME-BO1D**												
B11/12	9/28/2010	F-03D	9:16	10:46	5	70	Persulfate	15	13.5	17.50	90	90	0.78	Breakout
B11/12	9/29/2010	F-03D	9:00	9:13	5	10	Persulfate	15	13.5	2.5	13	13	0.77	Breakout
B11/12	9/30/2010	F-03D	8:51	9:13	7	10	Persulfate	15	13.5	2.5	22	22	0.45	Breakout
B11/12	10/4/2010	F-03D	9:32	10:13	6	25	Persulfate	15	13.5	6.25	41	41	0.61	Breakout
B11/12	10/6/2010	F-03D	9:40	10:03	5	15	Persulfate	15	13.5	3.75	23	23	0.65	Breakout
B11/12	10/12/2010	F-03D	10:50	11:20	0	15	Catalyst	0.8% Fe			30	30	0.50	
B11/12	10/14/2010	F-03D	11:27	12:02	4	15	Peroxide (MFR)	12			35	35	0.43	Breakout
B11/12	10/15/2010	F-03D	8:50	9:17	4	15	Peroxide (MFR)	12			27	27	0.56	Breakout
B11/12	9/20/2010	G-04D	10:05	11:48	35	40	Peroxide	8			103	103	0.39	
B11/12	9/21/2010	G-04D	13:12	14:22	20	40	Peroxide	8			70	70	0.57	
B11/12	9/22/2010	G-04D	10:08	11:35	15	40	Peroxide	8			87	87	0.46	
B11/12	9/23/2010	G-04D	12:12	13:15	15	40	Peroxide	8			63	63	0.63	
B11/12	9/24/2010	G-04D	10:44	12:00	15	40	Peroxide	8			76	76	0.53	
B11/12	9/27/2010	G-04D	11:02	12:07	15	40	Peroxide	8			65	65	0.62	
B11/12	9/29/2010	G-04D	10:10	10:47	10	25	Persulfate	15	13.5	6.25	37	37	0.68	Breakout
B11/12	9/30/2010	G-04D	9:14	10:02	10	45	Persulfate	15	13.5	11.25	48	48	0.94	Breakout
B11/12	10/4/2010	G-04D	10:13	10:30	10	10	Persulfate	15	13.5	2.50	17	17	0.59	Breakout
B11/12	10/6/2010	G-04D	9:20	9:40	10	15	Persulfate	15	13.5	3.75	20	20	0.75	Breakout
B11/12	10/12/2010	G-04D	10:50	12:15	0	55	Catalyst	0.8% Fe			85	85	0.65	
B11/12	10/14/2010	G-04D	12:02	13:40	25	35	Peroxide (MFR)	12			98	98	0.36	Breakout around nearby well
B11/12	10/15/2010	G-04D	11:20	12:13	12	40	Peroxide (MFR)	12			53	53	0.75	
B11/12	10/18/2010	G-04D	11:54	13:41	20	40	Peroxide (MFR)	12			107	107	0.37	Breakout
B11/12	10/19/2010	G-04D	9:30	11:10	15	35	Peroxide (MFR)	12			100	100	0.35	Breakout
B11/12	10/20/2010	G-04D	11:05	11:42	10	25	Peroxide (MFR)	8			37	37	0.68	
B11/12	9/20/2010	I-04D	12:23	12:53	15	10	Peroxide	8			30	30	0.33	Breakout
B11/12	9/21/2010	I-04D	8:58	9:30	10	15	Peroxide	8			32	32	0.47	Breakout
B11/12	9/22/2010	I-04D	8:10	8:40	10	15	Peroxide	8			30	30	0.50	Breakout
B11/12	9/23/2010	I-04D	8:19	9:00	10	15	Peroxide	8			41	41	0.37	Breakout
B11/12	9/24/2010	I-04D	7:46	8:44	10	25	Peroxide	8			58	58	0.43	Breakout
B11/12	9/27/2010	I-04D	8:16	8:40	10	20	Peroxide	8			24	24	0.83	Breakout
B11/12	9/28/2010	I-04D	9:00	9:15	10	10	Persulfate	15	13.5	2.5	15	15	0.67	Breakout
B11/12	9/29/2010	I-04D	8:34	8:59	5	20	Persulfate	15	13.5	5	25	25	0.80	Breakout

Table 4-3
Area B – Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
B11/12	9/30/2010	I-04D	8:12	8:50	5	25	Persulfate	15	13.5	6.25	38	38	0.66	Breakout
B11/12	10/4/2010	I-04D	9:05	9:32	4	25	Persulfate	15	13.5	6.25	27	27	0.93	Breakout
B11/12	10/6/2010	I-04D	8:50	9:20	5	20	Persulfate	15	13.5	5	30	30	0.67	Breakout
B11/12	10/12/2010	I-04D	12:04	12:25	5	25	Catalyst	0.8% Fe			21	21	1.19	
B11/12	10/14/2010	I-04D	15:15	15:25	5	5	Peroxide (MFR)	12			10	10	0.50	
B11/12	10/15/2010	I-04D	8:30	8:55	5	15	Peroxide (MFR)	12			25	25	0.60	Breakout
B11/12	10/18/2010	I-04D	11:00	11:12	5	5	Peroxide (MFR)	12			12	12	0.42	Breakout
B11/12	10/19/2010	I-04D	12:40	12:59	10	10	Peroxide (MFR)	12			19	19	0.53	Breakout
B11/12	10/20/2010	I-04D	9:21	9:38	8	10	Peroxide (MFR)	8			17	17	0.59	Breakout
B11/12	9/20/2010	K-04D	14:20	15:38	10	40	Peroxide	8			78	78	0.51	
B11/12	9/21/2010	K-04D	11:04	12:27	10	40	Peroxide	8			83	83	0.48	
B11/12	9/22/2010	K-04D	11:39	13:00	15	40	Peroxide	8			81	81	0.49	
B11/12	9/23/2010	K-04D	10:54	12:10	15	40	Peroxide	8			76	76	0.53	
B11/12	9/24/2010	K-04D	9:40	10:40	15	40	Peroxide	8			60	60	0.67	
B11/12	9/27/2010	K-04D	8:41	9:32	15	40	Peroxide	8			51	51	0.78	
B11/12	9/29/2010	K-04D	9:14	11:00	12	100	Persulfate	15	13.5	25	106	106	0.94	
B11/12	9/30/2010	K-04D	12:08	13:18	18	100	Persulfate	15	13.5	25	70	70	1.43	
B11/12	10/5/2010	K-04D	12:20	13:32	15	80	Persulfate	15	13.5	20	72	72	1.11	Breakout
B11/12	10/6/2010	K-04D	9:48	10:14	15	15	Persulfate	15	13.5	3.75	26	26	0.58	Breakout
B11/12	10/7/2010	K-04D	8:50	9:17	15	20	Persulfate	15	13.5	5	27	27	0.74	Breakout
B11/12	10/13/2010	K-04D	8:30	9:30	2	55	Catalyst	0.8% Fe			60	60	0.92	
B11/12	10/14/2010	K-04D	14:09	16:05	24	50	Peroxide (MFR)	12			116	116	0.43	
B11/12	10/15/2010	K-04D	8:55	9:36	15	20	Peroxide (MFR)	12			41	41	0.49	
B11/12	10/18/2010	K-04D	11:20	11:54	15	25	Peroxide (MFR)	12			34	34	0.74	Breakout
B11/12	10/19/2010	K-04D	8:40	9:03	12	20	Peroxide (MFR)	12			23	23	0.87	Breakout
B11/12	10/20/2010	K-04D	8:57	9:21	10	15	Peroxide (MFR)	8			24	24	0.62	Breakout
B11	9/20/2010	N-03D	14:25	15:25	30	40	Peroxide	8			60	60	0.67	
B11	9/21/2010	N-03D	13:12	14:22	20	45	Peroxide	8			70	70	0.64	
B11	9/22/2010	N-03D	12:13	13:25	15	40	Peroxide	8			72	72	0.56	
B11	9/23/2010	N-03D	11:58	13:05	20	45	Peroxide	8			67	67	0.67	
B11	9/24/2010	N-03D	11:19	12:51	20	50	Peroxide	8			92	92	0.54	
B11	9/27/2010	N-03D	10:35	11:20	20	20	Peroxide	8			45	45	0.44	
B11	9/28/2010	N-03D	13:57	14:37	15	60	Persulfate	15	13.5	15	40	40	1.50	
B11	9/30/2010	N-03D	9:30	11:10	25	100	Persulfate	15	13.5	25	100	100	1.00	
B11	10/4/2010	N-03D	12:50	13:37	8	60	Persulfate	15	13.5	15	47	47	1.28	Breakout around nearby well
B11	10/5/2010	N-03D	12:30	13:36	15	100	Persulfate	15	13.5	25	66	66	1.52	
B11	10/6/2010	N-03D	11:36	12:00	20	20	Persulfate	15	13.5	5	24	24	0.83	
B11	10/12/2010	N-03D	11:05	12:00	8	55	Catalyst	0.8% Fe			55	55	1.00	
B11	10/14/2010	N-03D	13:52	14:07	20	5	Peroxide (MFR)	12			15	15	0.33	
B11	10/15/2010	N-03D	9:17	9:50	15	25	Peroxide (MFR)	12			33	33	0.76	
B11	10/18/2010	N-03D	10:32	11:52	15	40	Peroxide (MFR)	12			80	80	0.50	Breakout around nearby well

Watermark

Table 4-3
Area B – Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
B11	10/19/2010	N-03D	12:03	13:06	10	45	Peroxide (MFR)	12			63	63	0.71	Breakout
B11	10/20/2010	N-03D	9:35	10:40	10	55	Peroxide (MFR)	8			65	65	0.85	
B11	9/20/2010	O-02D	12:00	12:36	35	15	Peroxide	8			36	36	0.42	Breakout around nearby well
B11	9/21/2010	O-02D	10:42	12:27	20	60	Peroxide	8			105	105	0.57	
B11	9/22/2010	O-02D	13:02	14:05	20	45	Peroxide	8			63	63	0.71	
B11	9/23/2010	O-02D	13:07	14:07	20	40	Peroxide	8			60	60	0.67	
B11	9/24/2010	O-02D	12:23	13:33	20	50	Peroxide	8			70	70	0.71	
B11	9/27/2010	O-02D	11:22	12:10	20	30	Peroxide	8			48	48	0.63	
B11	9/29/2010	O-02D	12:31	14:21	20	100	Persulfate	15	13.5	25	110	110	0.91	
B11	9/30/2010	O-02D	11:20	12:36	25	80	Persulfate	15	13.5	20	76	76	1.05	
B11	10/4/2010	O-02D	11:08	12:20	30	100	Persulfate	15	13.5	25	72	72	1.39	
B11	10/7/2010	O-02D	9:08	9:50	25	60	Persulfate	15	13.5	15	42	42	1.43	
B11	10/12/2010	O-02D	14:00	14:21	0	20	Catalyst	0.8% Fe			21	21	0.95	
B11	10/13/2010	O-02D	8:50	9:30	12	35	Catalyst	0.8% Fe			40	40	0.88	
B11	10/14/2010	O-02D	12:05	12:53	30	15	Peroxide (MFR)	12			48	48	0.31	Breakout around nearby well
B11	10/15/2010	O-02D	10:46	11:56	50	50	Peroxide (MFR)	12			70	70	0.71	
B11	10/18/2010	O-02D	10:05	11:20	12	45	Peroxide (MFR)	12			75	75	0.60	
B11	10/19/2010	O-02D	11:07	12:01	15	40	Peroxide (MFR)	12			54	54	0.74	Breakout
B11	10/20/2010	O-02D	10:47	11:30	14	35	Peroxide (MFR)	8			43	43	0.81	
B11	9/29/2010	M-04D	12:22	14:15	10	100	Persulfate	15	13.5	25	113	113	0.88	
B11	9/30/2010	M-04D	12:18	13:28	15	100	Persulfate	15	13.5	25	70	70	1.43	
B11	10/4/2010	M-04D	12:10	13:30	15	100	Persulfate	15	13.5	25	80	80	1.25	
B11	10/6/2010	M-04D	11:22	12:20	16	60	Persulfate	15	13.5	15	58	58	1.03	
B11	10/12/2010	M-04D	13:25	14:36	5	50	Catalyst	0.8% Fe			71	71	0.70	
B11	10/14/2010	M-04D	12:25	13:05	25	10	Peroxide (MFR)	12			40	40	0.25	Breakout
B11	10/15/2010	M-04D	9:23	9:35	15	5	Peroxide (MFR)	12			12	12	0.42	Breakout
B11	10/18/2010	M-04D	9:17	9:34	10	5	Peroxide (MFR)	12			17	17	0.29	Breakout
B11	10/19/2010	M-04D	9:03	9:18	10	10	Peroxide (MFR)	12			15	15	0.67	Breakout
B11	10/20/2010	M-04D	9:16	9:35	10	15	Peroxide (MFR)	8			19	19	0.79	Breakout
B11	9/29/2010	O-04D	10:10	11:50	20	100	Persulfate	15	13.5	25	100	100	1.00	
B11	9/30/2010	O-04D	11:10	12:18	5	100	Persulfate	15	13.5	25	68	68	1.47	
B11	10/5/2010	O-04D	12:30	13:58	8	100	Persulfate	15	13.5	25	88	88	1.14	
B11	10/7/2010	O-04D	8:22	9:08	5	60	Persulfate	15	13.5	15	46	46	1.30	
B11	10/13/2010	O-04D	9:30	10:15	4	50	Catalyst	0.8% Fe			45	45	1.11	
B11	10/14/2010	O-04D	13:28	13:46	22	5	Peroxide (MFR)	12			18	18	0.28	Breakout
B11	10/15/2010	O-04D	11:45	12:28	10	30	Peroxide (MFR)	12			43	43	0.70	
B11	10/18/2010	O-04D	10:04	10:32	12	25	Peroxide (MFR)	12			28	28	0.89	Breakout
B11	10/19/2010	O-04D	10:48	11:07	10	15	Peroxide (MFR)	12			19	19	0.79	Breakout
B11	10/20/2010	O-04D	10:30	10:47	7	10	Peroxide (MFR)	8			17	17	0.59	Breakout

Table 4-3
Area B – Injection Summary Table by Date

Area	Date	Well ID	Time (start)	Time (stop)	Pressure (psi)	Inj. Volume (gal)	Type of Injection	Injection Concentration (%)	pH	Caustic (gal.)	Minutes	Injection Time (min.)	Flow Rate (gal/min)	Comments
B11	10/6/2010	E-04	8:55	9:55	0	100	Persulfate	15	13.5	25	60	60	1.67	
B11	10/7/2010	E-04	8:20	9:51	0	135	Persulfate	15	13.5	33.75	91	91	1.48	
B11	10/6/2010	H-05	10:20	11:22	0	100	Persulfate	15	13.5	25	62	62	1.61	
B11	10/7/2010	H-05	8:20	9:21	0	100	Persulfate	15	13.5	25	61	61	1.64	
B13	10/6/2010	R-04D	11:40	12:42	12	60	Persulfate	15	13.5	15	62	62	0.97	
B13	10/20/2010	R-04D	9:02	9:30	10	10	Peroxide (MFR)	8			28	28	0.36	Breakout
B13	10/6/2010	S-03D	12:42	13:00	4	20	Persulfate	15	13.5	5	18	18	1.11	Breakout
B13	10/20/2010	S-03D	8:34	9:02	10	10	Peroxide (MFR)	8			28	28	0.36	Breakout
B11	10/6/2010	T-01	8:55	10:18	0	100	Persulfate	15	13.5	25	83	83	1.20	
B11	10/7/2010	T-01	9:24	10:13	0	90	Persulfate	15	13.5	22.5	49	49	1.84	Breakout
B13	10/6/2010	T-04D	13:00	13:25	5	20	Persulfate	15	13.5	5	25	25	0.80	Breakout
B13	10/20/2010	T-04D	8:10	8:34	10	10	Peroxide (MFR)	8			24	24	0.42	Breakout

Area B	# of Days	Number of Wells	Average Pressure (psi)	Total Injection Volume (gal.)	Average pH	Total Volume of Caustic (Gal.)	Average Inj. Time (min.)	Average Flow Rate (gal/min.)
Totals:	**20**	**28**	**9.16**	**12,672**	**13.5**	**1,799**	**49**	**0.85**

Injection Type	Number of Wells	Injection Rate (gpm)	Total Volume (gal)	Injection Pressure (psi)
Peroxide	**10**	**0.54**	**2,075**	**13.92**
Persulfate	**28**	**1.19**	**7,197**	**7.32**
Catalyst	**20**	**1.02**	**1,015**	**2.82**
Peroxide (MFR)	**24**	**0.61**	**2,385**	**9.82**

Note:

Bold Text Indicates Total Injection Volume for that Individual Well

Table 4-1
Area A - Injection Summary Table by Date - 2010
Ottati Goss Superfund Site

Area	Well ID	Persulfate Vol. per Well (gal.)	Persulfate Concentration (%)	Caustic Vol. per Well (gal.)	Catalyst Vol. per Well (gal.)	Peroxide Vol. per Well (gal.)	Peroxide Concentration (%)
B11	F-03S	400	15	100	65	180	12
B11	G-04S	400	15	100	65	180	12
B11	I-04S	280	15	70	65	205	12 & 8
B11	J-05	400	15	100	65	180	12
B11	K-04S	360	15	90	65	180	12
B11	L-03D	560	15	140	65	85	12 & 8
B11	L-05	400	15	100	65	125	12 & 8
B11	H-03	350	15	87.5	50	410	12 & 8
B11	J-03M	55	15	13.75	0	85	12
B11	M-02	145	15	36.25	0	0	NA
B11	ME-BIS	200	15	50	50	280	12 & 8
B11	N-03S	315	15	78.75	50	270	12 & 8
B11	O-02S	205	15	51.25	25	30	12 & 8
B11	ME-BO1D	365	15	91.25	25	295	12 & 8
B11	N-03D	340	15	85	55	410	12 & 8
B11	O-02D	340	15	85	55	425	12 & 8
B11	M-04D	360	15	90	50	45	12 & 8
B11	O-04D	360	15	90.00	50	85	12 & 8
B11	E-04	235	15	58.75	0	0	NA
B11	H-05	200	15	50.00	0	0	NA
B11	T-01	190	15	47.5	0	0	NA
B11/12	F-03D	130	15	32.50	15	30	12
B11/12	G-04D	95	15	23.75	55	415	12 & 8
B11/12	I-04D	100	15	25	25	145	12 & 8
B11/12	K-04D	315	15	78.75	55	370	12 & 8
B13	R-04D	60	15	15	0	10	8
B13	S-03D	20	15	5	0	10	8
B13	T-04D	20	15	5.0	0	10	8

Summary

Injection Area	Number of Wells	Total Volume of Persulfate (gal.)	Total Volume of Caustic (gal.)	Total Volume of Catalyst (gal.)	Total Volume of Peroxide (gal.)
B11	21	6,460	1,615	865	3470
B11/12	4	640	160	150	960
B13	3	100	25	0	30
TOTAL	28	7,200	1,800	1,015	4,460

Table 4-5
Area A – In-Situ Groundwater Parameters

Well ID	Date	Time	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Comments
ME-A01D	9/28/2010	9:20	9.71	10.07	-164.9	12.1	0.14	1831	
ME-A01D	9/28/2010	13:42	9.67	10.11	-94.3	12.1	0.16	1606	
ME-A01D	9/29/2010	10:17	9.70	10.04	40.2	12.0	0.20	1387	
ME-A01D	9/29/2010	13:49	9.69	10.05	-10.9	12.0	0.17	1405	
ME-A01D	9/30/2010	8:58	9.73	10.09	63.2	11.9	0.18	1497	
ME-A01D	9/30/2010	13:06	9.59	10.07	-161.7	12.0	0.16	1455	
ME-A01D	10/1/2010	8:05	9.31	10.06	-88.1	12.7	0.25	1136	
ME-A01D	10/4/2010	8:38	9.64	10.33	6.8	12.2	0.16	1791	
ME-A01D	10/4/2010	12:33	9.59	10.30	-31.8	12.3	0.19	1746	
ME-A01D	10/5/2010	9:10	8.99	10.61	73.9	12.7	0.17	1497	
ME-A01D	10/5/2010	12:55	9.39	10.95	-365.5	12.8	0.42	2003	
ME-A01D	10/6/2010	8:58	9.74	12.38	-264.5	13.4	0.75	7629	
ME-A01D	10/7/2010	8:24	9.46	13.11	-388.2	13.6	0.77	25287	
ME-A01D	10/7/2010	11:51	9.40	13.10	-382.9	14.3	0.78	22066	
ME-A01D	10/12/2010	9:32	9.37	12.76	-66.9	15.1	0.89	15903	
ME-A01D	10/12/2010	13:55	8.63	12.27	-175.6	14.2	1.26	6228	
ME-A01D	10/13/2010	8:45	9.33	12.27	50.7	15.5	0.92	14355	
ME-A01D	10/13/2010	12:51	9.27	12.23	-53.8	15.4	1.25	14882	
ME-A01D	10/14/2010	9:12	9.34	11.86	-30.3	15.2	0.96	13895	
ME-A01D	10/14/2010	13:31	9.21	11.81	-274.5	15.3	1.39	13243	
ME-A01D	10/15/2010	10:24	6.73	11.34	-380.3	14.0	0.35	2674	
ME-A01D	10/15/2010	13:00	9.64	11.80	-353.5	15.1	0.42	5897	
ME-A01D	10/18/2010	9:45	8.77	11.63	59.3	14.8	0.07	6079	
ME-A01D	10/18/2010	13:46	8.36	12.40	-385.1	15.7	0.08	14853	
ME-A01D	10/19/2010	9:03	8.76	10.64	-121.5	15.4	0.11	9852	
ME-A01D	10/19/2010	13:23	8.52	10.80	-311.3	15.2	0.10	8925	
ME-A01D	10/20/2010	9:29	8.64	10.71	-214.3	15.6	0.12	11839	
ME-A01D	10/20/2010	13:10	8.13	12.48	-454.8	15.8	0.09	14826	
ME-A01S	9/28/2010	9:08	9.84	8.25	113.3	15.6	0.85	409.3	
ME-A01S	9/28/2010	13:34	9.81	8.51	8.2	16.1	1.08	411.0	
ME-A01S	9/29/2010	10:10	9.84	9.12	104.2	16.0	1.23	359.7	
ME-A01S	9/29/2010	13:41	9.82	9.00	33.4	16.3	1.14	369.1	
ME-A01S	9/30/2010	8:52	9.85	9.37	145	15.6	1.49	370.5	
ME-A01S	9/30/2010	12:58	9.69	9.27	-57.7	15.9	1.50	370.7	
ME-A01S	10/1/2010	7:59	9.37	9.93	70.4	15.8	1.09	340.0	
ME-A01S	10/4/2010	8:31	9.76	9.46	168.9	14.1	1.3	462.4	
ME-A01S	10/4/2010	12:27	9.73	8.95	91.9	15.2	1.56	463.6	
ME-A01S	10/5/2010	9:03	9.31	9.05	176.4	15.1	1.37	591.8	
ME-A01S	10/5/2010	12:49	9.46	8.83	-197.8	15.4	2.00	683	
ME-A01S	10/6/2010	8:51	9.55	8.90	144.4	15.2	1.72	733	
ME-A01S	10/7/2010	8:17	9.55	8.84	67.6	15.3	2.50	870	
ME-A01S	10/7/2010	11:41	9.52	8.60	-99.1	15.6	2.34	1039	
ME-A01S	10/12/2010	9:24	9.43	8.47	143.3	15.6	2.74	1461	
ME-A01S	10/13/2010	8:36	9.42	9.58	161.8	15.4	1.14	4577	
ME-A01S	10/13/2010	12:42	9.39	9.42	74.6	16.0	2.15	5139	
ME-A01S	10/14/2010	9:03	9.42	9.74	161.3	15.0	1.41	7009	
ME-A01S	10/14/2010	13:21	9.34	9.94	-39.4	15.9	3.34	8750	
ME-A01S	10/15/2010	10:13	8.30	7.06	-111.1	15.2	0.30	2026	
ME-A01S	10/15/2010	12:51	9.28	6.79	-36.5	15.3	0.71	1240	
ME-A01S	10/18/2010	9:35	8.89	6.97	308.8	15.5	2.51	562.4	
ME-A01S	10/18/2010	13:38	8.44	7.97	91.4	16.1	5.30	3155	
ME-A01S	10/19/2010	8:55	8.86	10.18	75.8	14.7	0.36	6096	
ME-A01S	10/19/2010	13:15	8.72	10.05	-1.6	15.6	1.44	6145	
ME-A01S	10/20/2010	9:21	8.76	9.92	22.8	14.8	0.15	7811	
ME-A01S	10/20/2010	13:02	8.25	9.79	-224.3	16.3	0.10	8015	
ME-A02D	9/28/2010	9:46	9.84	10.03	-303.7	11.6	0.17	2510	
ME-A02D	9/28/2010	13:57	9.81	10.02	-267.9	11.8	0.10	2452	
ME-A02D	9/29/2010	10:29	9.83	9.98	-241.1	11.8	0.14	2156	
ME-A02S	9/28/2010	9:28	9.91	10.05	-252.5	13.8	0.12	970	
ME-A02S	9/28/2010	13:50	9.85	9.89	-173.1	14.1	0.11	878	
ME-A02S	9/29/2010	10:23	9.87	10.02	-86.2	13.9	0.16	799	
MEPM-A10	9/28/2010	9:53	9.6	7.52	-130.1	12.7	0.15	263.8	
MEPM-A10	9/28/2010	14:08	9.58	7.37	-122.8	13.0	0.38	349.3	
MEPM-A10	9/29/2010	10:37	9.61	7.43	-128.2	12.7	0.13	421.5	
MEPM-A10	9/29/2010	13:56	9.58	7.38	-107.9	12.4	0.16	838	
MEPM-A10	9/30/2010	9:08	9.61	7.22	-152.7	12.6	0.16	800	
MEPM-A10	9/30/2010	13:02	9.52	7.30	166.5	12.6	0.29	840	
MEPM-A10	10/1/2010	8:13	9.51	7.21	-178.9	12.6	0.14	1223	
MEPM-A10	10/4/2010	8:46	9.53	7.40	-138.1	12.7	0.14	2455	
MEPM-A10	10/4/2010	12:41	9.5	7.35	-161.4	12.5	0.20	2527	

Table 4-5
Area A – In-Situ Groundwater Parameters

Well ID	Date	Time	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Comments
MEPM-A10	10/5/2010	9:20	9.34	7.65	-192.1	12.6	0.14	3807	
MEPM-A10	10/5/2010	13:03	9.33	7.71	-220.9	12.8	0.40	2855	
MEPM-A10	10/6/2010	9:06	9.38	7.73	-225.4	12.4	0.74	3146	
MEPM-A10	10/7/2010	8:32	9.29	7.49	-220.1	12.1	0.84	3374	
MEPM-A10	10/7/2010	11:57	9.26	7.55	-219.4	12.8	1.02	2984	
MEPM-A11	9/28/2010	10:02	9.98	8.43	-226.3	11.8	0.14	1944	
MEPM-A11	9/28/2010	14:15	9.88	8.31	-203.2	11.7	0.15	2002	
MEPM-A11	9/29/2010	10:45	9.87	8.41	-213.8	11.6	0.12	1741	
MEPM-A11	9/29/2010	14:05	9.88	8.30	-197.1	11.7	0.12	1671	
MEPM-A11	9/30/2010	9:15	9.97	8.27	-228.6	11.5	0.13	1680	
MEPM-A11	9/30/2010	13:11	9.85	8.4	-240.5	11.7	0.16	1729	
MEPM-A11	10/1/2010	8:22	9.92	8.37	-266.1	11.5	0.13	1661	
MEPM-A11	10/4/2010	8:58	9.88	8.32	-234.1	11.8	0.12	1862	
MEPM-A11	10/4/2010	12:52	9.71	8.84	-268.4	11.6	0.13	2034	
MEPM-A11	10/5/2010	9:27	9.56	8.76	-263.2	11.4	0.14	2015	
MEPM-A11	10/5/2010	13:10	9.64	8.65	-278.5	11.5	0.4	2078	
MEPM-A11	10/6/2010	9:15	9.73	8.51	-251.1	11.6	0.71	1980	
MEPM-A11	10/7/2010	8:40	9.6	8.12	-236.7	11.6	0.8	2042	
MEPM-A11	10/7/2010	12:05	9.38	8.44	-260.3	11.6	1.01	2012	
MEPM-A12	9/28/2010	10:11	11.31	6.94	-102.1	11.8	1	4265	
MEPM-A12	9/28/2010	14:23	11.27	6.89	-95.1	11.8	0.18	5433	
MEPM-A12	9/29/2010	10:51	11.3	6.83	-92.9	11.6	1.53	6412	
MEPM-A12	9/29/2010	14:12	11.28	6.83	-98.1	12	0.23	5545	
MEPM-A12	9/30/2010	9:23	11.32	6.91	-130.3	11.7	0.67	5522	
MEPM-A12	9/30/2010	13:20	10.97	6.95	-147.4	12.1	0.39	4517	
MEPM-A12	10/1/2010	8:32	11.04	6.66	-123.1	11.7	1.25	5889	
MEPM-A12	10/4/2010	9:07	11.27	6.67	-110.3	11.7	0.56	8094	
MEPM-A12	10/4/2010	13:01	11.21	6.6	-99	11.6	0.42	9972	
MEPM-A12	10/5/2010	9:37	11.04	6.65	-97.4	11.8	0.79	10357	
MEPM-A12	10/5/2010	13:15	11	6.75	-137.5	11.7	0.62	9921	
MEPM-A12	10/6/2010	9:29	11.07	5.27	263.3	12.4	0.65	9288	
MEPM-A12	10/7/2010	8:49	11.02	8.03	175.1	13.1	0.78	13798	
MEPM-A12	10/7/2010	12:12	10.98	10.31	94.9	13.1	1.04	18729	
MEPM-A13	9/20/2010	11:55	**	3.43	327	13.4	0.08	7136	Baseline Monitoring **Probe not working
MEPM-A13	9/20/2010	16:37	11.34	3.42	350.1	13.2	0.09	7211	
MEPM-A13	9/21/2010	9:21	10.94	3.49	335.2	13.3	0.11	9512	
MEPM-A13	9/21/2010	14:43	11.25	3.55	378	11.6	0.18	16831	
MEPM-A13	9/22/2010	8:10	11.41	3.69	315.5	12	0.27	9909	
MEPM-A13	9/22/2010	13:06	11.39	3.75	313.2	12.8	0.27	8695	
MEPM-A13	9/23/2010	8:37	11.31	3.86	33.4	11.1	0.88	28640	
MEPM-A13	9/23/2010	13:16	11.4	4.59	207.7	12.2	0.64	8403	
MEPM-A13	9/24/2010	8:13	11.3	4.83	203	12.1	0.23	7345	
MEPM-A13	9/24/2010	12:42	11.44	4.7	222.6	12.4	0.62	8430	
MEPM-A13	9/27/2010	8:24	11.56	4.98	159.7	11.9	0.77	6994	
MEPM-A13	9/27/2010	12:20	11.42	5.2	157.7	12.1	0.66	6773	
MEPM-A13	9/28/2010	10:24	11.57	3.61	202.6	11.4	0.59	29987	
MEPM-A13	9/28/2010	14:29	11.23	4.58	112.9	11.2	0.49	38248	
MEPM-A13	9/29/2010	10:58	11.41	4.12	152.9	11.4	0.83	28725	
MEPM-A13	9/29/2010	14:19	11.34	4.72	128.4	11	0.41	34277	
MEPM-A13	9/30/2010	9:39	11.4	5.32	290.4	10.7	0.41	40700	
MEPM-A13	9/30/2010	13:33	11.44	3.75	371.9	12	0.28	21350	
MEPM-A13	10/1/2010	8:39	11.46	3.89	295.9	11.4	0.66	29879	
MEPM-A13	10/4/2010	9:16	11.52	4.68	136.6	11.7	0.36	8426	
MEPM-A13	10/4/2010	13:10	11.14	4.64	254.9	11.1	0.25	46126	
MEPM-A13	10/5/2010	9:46	11.07	4.99	299.6	11	0.42	44457	
MEPM-A13	10/5/2010	13:22	11.28	5.91	172.9	10.8	0.8	46043	
MEPM-A13	10/6/2010	9:37	11.4	3.62	325.7	11.9	0.42	11233	
MEPM-A13	10/7/2010	8:56	11.28	4.88	319.5	11	1.67	32526	
MEPM-A13	10/7/2010	12:20	10.94	5.54	264.2	10.9	1	48715	
MEPM-A14	9/20/2010	11:44	**	7.2	-130.2	13.3	0.12	2401	Baseline Monitoring **Probe not working
MEPM-A14	9/20/2010	16:36	11.22	7.1	-116.7	12.3	0.11	2353	
MEPM-A14	9/21/2010	9:18	10.21	7.12	-109.2	12.4	0.05	3179	
MEPM-A14	9/21/2010	14:32	10.99	6.56	-56.3	11	0.06	9148	
MEPM-A14	9/22/2010	8:24	11.14	6.59	-72.5	10.9	0.17	6051	
MEPM-A14	9/22/2010	13:14	11.31	6.94	-117.7	11.4	0.09	3397	
MEPM-A14	9/23/2010	8:46	10.54	6.47	-35.5	11	0.36	6519	
MEPM-A14	9/23/2010	13:26	11.32	6.92	-102.9	11.7	0.2	2402	
MEPM-A14	9/24/2010	8:22	10.58	6.25	-8.5	10.6	0.39	14465	

Table 4-5
Area A – In-Situ Groundwater Parameters

Well ID	Date	Time	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Comments
MEPM-A14	9/24/2010	12:51	11.39	6.92	-73.4	11.6	0.23	2756	
MEPM-A14	9/27/2010	8:39	11.13	6.62	-36.6	11	0.38	6130	
MEPM-A14	9/27/2010	12:30	11.29	6.65	-3.3	11.3	0.27	6109	
MEPM-A14	9/28/2010	10:52	11.46	6.77	-49.7	11	0.1	5134	
MEPM-A14	9/28/2010	14:36	10.83	6.47	-8.3	11	0.12	8357	
MEPM-A14	9/29/2010	11:05	10.93	6.36	2.6	10.9	0.24	7833	
MEPM-A14	9/29/2010	14:25	11.11	6.3	12.5	10.8	0.17	10786	
MEPM-A14	9/30/2010	9:46	10.89	6.24	21.7	10.7	0.14	15800	
MEPM-A14	9/30/2010	13:40	11.32	6.58	-66.8	11.2	0.18	5964	
MEPM-A14	10/1/2010	8:46	11.28	6.51	-59.4	11.1	0.18	4681	
MEPM-A14	10/4/2010	9:55	11.4	6.87	-95.1	11.1	0.14	5344	
MEPM-A14	10/4/2010	13:17	10.59	6.6	-53.3	11.4	0.15	5356	
MEPM-A14	10/5/2010	9:54	10.48	6.4	5.2	11.1	0.16	8976	
MEPM-A14	10/5/2010	13:29	11.15	6.4	-70.7	10.9	0.32	9136	
MEPM-A14	10/6/2010	9:45	11.28	6.57	-65.8	11.2	0.28	5090	
MEPM-A14	10/7/2010	9:03	11.02	6.34	-38.8	11.1	0.37	6778	
MEPM-A14	10/7/2010	12:29	10.75	6.02	-18	10.9	0.43	18680	
MEPM-A14	10/12/2010	9:42	11.1	6.4	-84.9	11.3	3.86	10013	
MEPM-A14	10/12/2010	14:04	11.03	6.22	37.5	11.3	0.93	11904	
MEPM-A14	10/13/2010	8:54	10.94	5.94	110.5	11.5	0.98	10697	
MEPM-A14	10/13/2010	13:00	10.45	5.85	196	11.2	0.96	21647	
MEPM-A14	10/14/2010	9:21	10.75	6.42	191.5	11.4	1.12	16950	
MEPM-A14	10/14/2010	13:39	18.18	9.02	333.5	11.2	2.41	32814	
MEPM-A14	10/15/2010	10:37	10.92	9.76	193.8	11.4	0.61	14881	
MEPM-A14	10/15/2010	13:09	10.93	9.55	153.6	11.4	1.17	17448	
MEPM-A14	10/18/2010	9:54	10.63	7.99	195.4	11.5	0.74	11951	
MEPM-A14	10/18/2010	13:54	10.56	9.7	207.5	11.4	0.42	17071	
MEPM-A14	10/19/2010	9:11	10.49	8.39	71.7	11.4	0.21	10106	
MEPM-A14	10/19/2010	13:31	7.55	12.67	199.8	11.3	6.93	31903	
MEPM-A14	10/20/2010	9:37	9.61	11.44	156.6	11.4	1.91	24751	
MEPM-A14	10/20/2010	13:18	10.37	10.24	85.3	11.5	1.39	18507	
MEPM-A15D	9/20/2010	11:39	**	7.53	157.4	13	0.14	44947	Baseline Monitoring **Probe not working
MEPM-A15D	9/20/2010	16:32	12.78	7.65	142.8	11.6	0.17	44196	
MEPM-A15D	9/21/2010	9:13	11.44	7.8	123.9	11.7	0.25	57146	
MEPM-A15D	9/21/2010	14:07	12.44	7.8	80.9	11.2	0.29	55552	
MEPM-A15D	9/22/2010	8:41	11.62	7.92	53.4	11	0.78	42542	
MEPM-A15D	9/22/2010	13:31	12.84	7.77	31.8	11.2	0.44	41041	
MEPM-A15D	9/23/2010	9:07	11.14	7.66	-16.2	11.3	0.83	35559	
MEPM-A15D	9/23/2010	13:42	12.84	7.59	3.1	11.1	0.82	34444	
MEPM-A15D	9/24/2010	8:43	11.09	8.06	-18.1	10.7	1.92	37201	
MEPM-A15D	9/24/2010	13:13	12.93	7.67	12.7	11.2	1.04	36354	
MEPM-A15D	9/27/2010	9:00	11.77	7.61	-58.2	11.6	0.35	36912	
MEPM-A15D	9/27/2010	12:46	12.8	7.65	-12.3	11.7	0.85	36529	
MEPM-A15D	9/28/2010	11:11	12.88	7.68	-25.2	11.6	0.36	34722	
MEPM-A15D	9/28/2010	14:58	11.99	7.87	-36.3	11.3	0.78	34196	
MEPM-A15D	9/29/2010	11:34	12.03	7.75	-15.3	12.2	0.31	30042	
MEPM-A15D	9/29/2010	14:39	12.32	7.72	-48.2	12.2	0.25	30112	
MEPM-A15D	9/30/2010	10:08	11.87	7.71	-22.3	12.3	0.12	23392	
MEPM-A15D	9/30/2010	13:57	12.69	7.75	186.9	12.1	0.13	31102	
MEPM-A15D	10/1/2010	9:09	12.58	7.75	191.1	11.6	0.11	28807	
MEPM-A15D	10/4/2010	9:40	12.76	7.83	231.6	13.1	0.11	55997	
MEPM-A15D	10/4/2010	13:33	12.26	8.88	130.2	12.4	0.1	36308	
MEPM-A15D	10/5/2010	10:14	12.03	12.87	259.9	12.5	0.14	41705	
MEPM-A15D	10/5/2010	13:46	12.56	12.53	87.6	12.5	0.24	38058	
MEPM-A15D	10/6/2010	11:04	12.65	13.75	295.9	12.3	0.19	70601	
MEPM-A15D	10/7/2010	9:20	12.05	13.51	361.9	12	4.89	119541	
MEPM-A15D	10/7/2010	12:47	12.27	13.41	331	11.6	6.99	119523	
MEPM-A15D	10/12/2010	10:07	12.51	13.79	389.4	11.9	12.33	136944	
MEPM-A15D	10/12/2010	14:12	12.46	13.59	417.4	12.3	10.02	135299	
MEPM-A15D	10/13/2010	9:11	12.33	13.78	430.7	12.3	7.2	145040	
MEPM-A15D	10/13/2010	13:17	11.46	13.69	421.2	12.6	9.13	145318	
MEPM-A15D	10/14/2010	9:39	12.2	13.71	393.8	12.6	15.07	139023	
MEPM-A15D	10/14/2010	13:49	11.33	13.56	421.3	12.4	13.06	135415	
MEPM-A15D	10/15/2010	10:55	12.44	13.87	375.7	12.3	16.05	113893	
MEPM-A15D	10/15/2010	13:29	12.33	13.85	409.5	12.6	13.66	111814	
MEPM-A15D	10/18/2010	10:13	12.19	13.87	364.4	12.9	18.94	109881	
MEPM-A15D	10/18/2010	14:10	12.17	13.81	373.9	12.8	20.74	110752	
MEPM-A15D	10/19/2010	9:29	12.01	13.86	368.2	12.8	19.3	101138	
MEPM-A15D	10/19/2010	13:48	8.51	13.87	355.2	13.1	17.96	95846	

Table 4-5
Area A – In-Situ Groundwater Parameters

Well ID	Date	Time	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Comments
MEPM-A15D	10/20/2010	9:53	11.04	13.87	334	13.3	18.25	102481	
MEPM-A15D	10/20/2010	13:34	12.02	13.95	262.4	12.4	22.6	107535	
MEPM-A15S	9/20/2010	11:23	**	6.69	19.6	14	1.33	813	Baseline Monitoring **Probe not working
MEPM-A15S	9/20/2010	16:14	12.26	6.6	-15.8	12.3	0.11	14060	
MEPM-A15S	9/21/2010	9:12	10.83	6.88	-97.2	11.8	0.18	16768	
MEPM-A15S	9/21/2010	13:56	11.95	6.64	32.8	10.6	0.09	20060	
MEPM-A15S	9/22/2010	8:31	11.31	6.9	-96.4	11.4	0.15	12624	
MEPM-A15S	9/22/2010	13:23	12.48	6.51	10.3	10.8	0.93	14848	
MEPM-A15S	9/23/2010	8:59	10.19	7	-78.7	11.8	0.69	6952	
MEPM-A15S	9/23/2010	13:33	12.43	6.43	1.5	10.7	0.25	13074	
MEPM-A15S	9/24/2010	8:33	10.75	6.8	-27.8	11.1	0.28	12106	
MEPM-A15S	9/24/2010	13:00	12.54	6.33	25.1	10.7	0.3	14460	
MEPM-A15S	9/27/2010	8:50	11.16	7.04	-88.8	12.1	0.2	7200	
MEPM-A15S	9/27/2010	12:37	12.42	6.23	26.9	10.9	0.31	17247	
MEPM-A15S	9/28/2010	11:02	12.46	6.11	-44.1	11.1	0.18	18354	
MEPM-A15S	9/28/2010	14:47	11.48	6.9	-26.1	11.4	0.17	10868	
MEPM-A15S	9/29/2010	11:28	11.67	12.2	34	11.5	0.55	14617	
MEPM-A15S	9/29/2010	14:32	11.91	6.61	-8.1	11.8	0.12	11829	
MEPM-A15S	9/30/2010	10:01	11.58	6.81	8.1	11.8	1.51	19602	
MEPM-A15S	9/30/2010	13:49	12.41	6.68	156.4	11.8	2.26	22637	
MEPM-A15S	10/1/2010	9:20	12.31	6.6	52.1	12.6	0.15	14660	
MEPM-A15S	10/4/2010	9:30	12.52	6.54	254	13.3	0.83	26558	
MEPM-A15S	10/4/2010	13:24	11.96	6.73	34.7	13.6	0.2	22858	
MEPM-A15S	10/5/2010	10:03	11.66	6.71	105.7	13.8	0.15	18407	
MEPM-A15S	10/5/2010	13:39	12.27	9.57	140.6	13.4	0.36	29761	
MEPM-A15S	10/6/2010	9:52	12.43	6.63	197.2	13.6	0.73	26316	
MEPM-A15S	10/7/2010	9:12	11.68	7.39	-37.2	14.5	0.32	17175	
MEPM-A15S	10/7/2010	12:41	12.02	9.75	196.4	13.7	0.37	30058	
MEPM-A15S	10/12/2010	9:58	12.28	6.35	309.4	14.8	0.44	25973	
MEPM-A15S	10/13/2010	9:02	12	10.05	261.8	14.9	0.38	27989	
MEPM-A15S	10/13/2010	13:08	11.14	12.78	172.5	14.5	0.31	38398	
MEPM-A15S	10/14/2010	9:30	11.79	11.83	143.6	14.9	0.37	29418	
MEPM-A15S	10/15/2010	10:47	12.08	13.12	102.1	14.9	0.52	32199	
MEPM-A15S	10/15/2010	13:18	12	12.83	127.9	14.7	1.02	25793	
MEPM-A15S	10/18/2010	10:05	11.77	13.03	138.1	14.7	0.42	31915	
MEPM-A15S	10/18/2010	14:02	11.74	13.27	71.6	14.5	0.05	39583	
MEPM-A15S	10/19/2010	9:19	11.53	10.45	37	15.4	2.44	12751	
MEPM-A15S	10/19/2010	13:40	7.67	12.74	128.7	14.9	4.28	23503	
MEPM-A15S	10/20/2010	9:45	10.2	9.81	100.1	16.1	7.99	10938	
MEPM-A15S	10/20/2010	13:26	11.57	13.29	-20.5	14.9	2.74	33387	
MEPM-A16	9/20/2010	10:47	11.91	7.63	-145.5	14	0.31	4113	Baseline Monitoring
MEPM-A16	9/20/2010	16:24	12.39	6.92	-128.6	12.4	0.18	4011	
MEPM-A16	9/21/2010	9:05	9.58	7.1	-119.6	12.3	0.15	4956	
MEPM-A16	9/21/2010	13:53	12.43	6.17	70.1	11.7	0.23	20622	
MEPM-A16	9/22/2010	8:49	11.84	6.55	-23.4	11.4	0.09	15481	
MEPM-A16	9/22/2010	13:42	12.25	7.03	-113.3	11.5	0.07	8277	
MEPM-A16	9/23/2010	9:20	10.51	6.9	-97	11.3	0.16	8449	
MEPM-A16	9/23/2010	13:49	12.29	7.24	-122.7	11.9	0.14	4021	
MEPM-A16	9/24/2010	8:57	11.22	6.83	-53.4	11.5	0.18	9036	
MEPM-A16	9/24/2010	13:22	12.47	7.11	-86.8	12	0.15	5076	
MEPM-A16	9/27/2010	9:13	11.69	7.09	-112.9	11.7	0.14	6784	
MEPM-A16	9/27/2010	12:56	12.49	7.16	-104.8	11.9	0.11	5858	
MEPM-A16	9/28/2010	11:22	12.39	9.89	-163.2	11.3	0.57	35671	
MEPM-A16	9/28/2010	15:06	11.65	9.77	-159.8	10.8	0.29	35890	
MEPM-A16	9/29/2010	11:43	11.81	8.91	-89.3	12.5	0.15	21862	
MEPM-A16	9/29/2010	14:46	12.2	9.66	-135.7	11.9	0.08	25978	
MEPM-A16	9/30/2010	10:15	12.23	9.47	-110.4	12.8	0.06	23020	
MEPM-A16	9/30/2010	14:09	12.35	10.66	131.9	12.5	0.29	30322	
MEPM-A16	10/1/2010	9:17	11.68	12.89	136.9	11.9	0.17	35824	
MEPM-A16	10/4/2010	10:03	12.27	12.21	-35.3	13.7	0.17	19536	
MEPM-A16	10/4/2010	13:41	11.64	13.7	153.7	13.1	0.28	63555	
MEPM-A16	10/5/2010	10:21	11.65	13.31	160.3	13.6	0.2	34981	
MEPM-A16	10/5/2010	13:54	12.17	13.33	90.8	13	0.88	46634	
MEPM-A16	10/6/2010	10:19	12.32	14.02	467.3	13.2	4.77	160183	
MEPM-A16	10/7/2010	9:29	11.89	13.58	397.8	13.6	5.58	110034	
MEPM-A16	10/7/2010	12:54	12.05	13.54	341.9	13.3	4.32	80399	
MEPM-A16	10/12/2010	10:17	12.16	13.39	291.8	13.4	8.06	33882	
MEPM-A16	10/13/2010	9:20	11.47	13.5	337.6	13.1	5.08	60476	
MEPM-A16	10/13/2010	13:26	11.11	13.25	314.7	13.2	7.77	46143	

Table 4-5
Area A – In-Situ Groundwater Parameters

Well ID	Date	Time	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Comments
MEPM-A16	10/14/2010	9:48	11.66	13.39	342.4	12.6	3.88	60923	
MEPM-A16	10/14/2010	14:01	9.21	13.27	350.8	13.1	2.48	53750	
MEPM-A16	10/15/2010	11:04	12.1	13.06	275.7	13	1.19	33824	
MEPM-A16	10/15/2010	13:40	10.95	13.36	334.4	13	1.94	43183	
MEPM-A16	10/18/2010	10:23	11.43	12.18	239.1	12.9	0.07	28456	
MEPM-A16	10/18/2010	14:18	11.9	13.06	281.8	13.2	0.7	35400	
MEPM-A16	10/19/2010	9:38	10.05	13.12	272.9	12.8	1.45	33294	
MEPM-A16	10/19/2010	13:56	8.86	13.12	278.1	13.4	1.01	33383	
MEPM-A16	10/20/2010	10:01	9.93	12.77	247.1	13.2	0.79	29902	
MEPM-A16	10/20/2010	13:42	11.74	12.66	237.4	13.3	0.49	29130	
MEPM-A17	9/20/2010	10:40	13.5	6.62	-56.1	13.7	0.11	1727	Baseline Monitoring
MEPM-A17	9/20/2010	16:21	13.49	6.76	-48.3	14	0.51	1723	
MEPM-A17	9/21/2010	8:57	13.37	6.92	-124.9	12.8	0.11	2627	
MEPM-A17	9/21/2010	13:35	13.46	6.71	-136	12.2	0.1	62094	
MEPM-A17	9/22/2010	9:04	13.38	6.62	-118.7	11.3	0.07	53319	
MEPM-A17	9/22/2010	14:04	13.48	6.6	137.5	11.4	6.06	53587	
MEPM-A17	9/23/2010	9:34	13.23	6.69	-117.1	11.2	0.14	46609	
MEPM-A17	9/23/2010	13:58	13.5	5.17	108.5	11.5	0.22	34288	
MEPM-A17	9/24/2010	9:06	13.28	6.7	-91.2	11.4	0.16	49370	
MEPM-A17	9/24/2010	13:31	13.54	6.71	-102.4	11.7	0.14	48697	
MEPM-A17	9/27/2010	9:23	13.39	6.67	-89.9	11.4	0.19	51427	
MEPM-A17	9/27/2010	13:11	13.57	6.81	-123.4	11.6	0.11	48218	
MEPM-A17	9/28/2010	11:33	13.59	6.72	-77.7	11.4	0.12	44022	
MEPM-A17	9/28/2010	15:16	13.53	6.68	-70	11.4	0.11	48620	
MEPM-A17	9/29/2010	11:49	13.57	6.66	-58.4	11.6	0.16	42557	
MEPM-A17	9/29/2010	14:56	13.55	6.83	-80.8	11.7	0.12	40243	
MEPM-A17	9/30/2010	10:21	13.56	6.65	-75	11.3	0.16	45055	
MEPM-A17	9/30/2010	14:13	13.54	6.81	-141.2	11.6	0.82	43899	
MEPM-A17	10/1/2010	9:23	13.56	6.9	-144.9	11.6	0.14	39689	
MEPM-A17	10/4/2010	10:10	13.49	6.87	-134.4	11.4	0.14	53192	
MEPM-A17	10/4/2010	13:58	13.41	6.79	-151.6	11.4	0.11	51101	
MEPM-A17	10/5/2010	10:28	13.43	6.88	-123.7	11.5	0.2	48636	
MEPM-A17	10/5/2010	14:01	13.4	7.19	-196.3	11.7	0.28	46636	
MEPM-A17	10/6/2010	10:27	13.4	6.95	-150.7	11.6	0.46	48040	
MEPM-A17	10/7/2010	9:37	13.29	6.64	-136.1	11.5	0.52	52702	
MEPM-A17	10/7/2010	13:25	12.16	3.81	271.9	11.8	0.92	47902	
MEPM-A17	10/12/2010	10:33	13.23	6.62	-151.1	11.9	0.8	41518	
MEPM-A17	10/13/2010	9:27	13.2	6.81	-121.5	11.8	1.58	40620	
MEPM-A17	10/13/2010	13:36	13.18	6.78	-145.7	12	1.37	28881	
MEPM-A17	10/14/2010	9:57	13.11	7.01	-137.4	11.8	1.38	44392	
MEPM-A17	10/14/2010	14:10	13.07	7.01	-145.1	11.9	3.07	41399	
MEPM-A17	10/15/2010	11:16	13.1	6.96	-145.2	11.8	1.03	32191	
MEPM-A17	10/15/2010	13:50	13.05	6.95	-138.4	11.8	1.08	36692	
MEPM-A17	10/18/2010	10:51	12.73	6.83	-150.6	11.8	0.83	38201	
MEPM-A17	10/18/2010	14:32	12.85	7.03	-151.4	12	0.58	27997	
MEPM-A17	10/19/2010	9:48	12.7	7.07	-162.2	11.8	0.11	33754	
MEPM-A17	10/19/2010	14:06	12.55	7.08	-154.8	11.7	0.12	33816	
MEPM-A17	10/20/2010	10:09	12.59	7.21	-158.3	11.8	0.12	27572	
MEPM-A17	10/20/2010	13:51	12.67	7.23	-173.4	11.8	0.18	38330	
MEPM-A18	9/20/2010	10:49	**	4.85	156	13.2	0.41	48069	Baseline Monitoring **Probe not working
MEPM-A18	9/20/2010	16:22	12.82	5.35	98.8	12.1	0.43	41862	
MEPM-A18	9/21/2010	9:00	8.94	5.29	92.5	12.3	0.35	54678	
MEPM-A18	9/21/2010	13:40	12.69	5.16	107.9	11.5	6.28	52977	
MEPM-A18	9/22/2010	8:58	12.09	4.89	156.5	11.2	0.42	43375	
MEPM-A18	9/22/2010	13:51	12.52	5.25	118.7	11.6	0.2	40377	
MEPM-A18	9/23/2010	9:30	10.15	5.12	112.1	11.8	0.3	34572	
MEPM-A18	9/23/2010	14:07	12.7	6.8	-110.8	11.7	0.11	37490	
MEPM-A18	9/24/2010	9:14	11.52	5.04	105.3	11.5	0.36	37291	
MEPM-A18	9/24/2010	13:39	12.62	5.08	100.4	11.7	0.19	36495	
MEPM-A18	9/27/2010	9:35	10.65	5.21	66.7	11.9	0.47	34451	
MEPM-A18	9/27/2010	13:26	12.64	5.18	69.4	12	0.16	34827	
MEPM-A18	9/28/2010	11:40	12.52	4.88	103.8	11.9	0.26	37633	
MEPM-A18	9/28/2010	15:22	12.19	5.15	80.9	12	0.14	33574	
MEPM-A18	9/29/2010	11:55	12.24	4.27	143.4	11.9	0.41	36450	
MEPM-A18	9/29/2010	15:02	12.49	4.58	131.1	12	0.17	32921	
MEPM-A18	9/30/2010	10:28	12.42	4.27	151.4	11.6	0.22	41098	
MEPM-A18	9/30/2010	14:27	12.57	4.19	227.6	11.3	0.15	42612	
MEPM-A18	10/1/2010	9:29	12.12	4.35	184.4	11.9	0.32	38783	
MEPM-A18	10/4/2010	10:17	12.36	4.6	148.9	12.1	0.29	44999	

Table 4-5
Area A – In-Situ Groundwater Parameters

Well ID	Date	Time	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Comments
MEPM-A18	10/4/2010	14:10	10.97	4.75	142.6	12.3	0.17	40406	
MEPM-A18	10/5/2010	10:36	12.16	4.06	212.8	11.7	0.35	47923	
MEPM-A18	10/5/2010	14:06	12.34	4.39	193.8	12.3	0.67	45536	
MEPM-A18	10/6/2010	10:35	12.46	4.15	230.7	12.2	0.78	47021	
MEPM-A18	10/7/2010	9:45	11.65	4.444	184.5	12.4	0.62	43847	
MEPM-A18	10/7/2010	13:32	13.3	6.31	-93.4	11.8	0.32	39237	
MEPM-A18	10/12/2010	10:41	12.31	3.68	231.8	12	1.08	48322	
MEPM-A18	10/13/2010	9:37	11.89	3.46	273.7	12	0.8	51864	
MEPM-A18	10/13/2010	13:45	11.78	3.55	245.6	12.1	0.83	5112	
MEPM-A18	10/14/2010	10:07	12.13	3.63	267.3	11.9	0.89	50956	
MEPM-A18	10/14/2010	14:18	9.22	3.14	385.5	11.8	2.83	53899	
MEPM-A18	10/15/2010	11:26	12.26	3.17	366.2	12	1.16	43175	
MEPM-A18	10/15/2010	13:59	11.52	3.17	333.7	11.8	1.5	44086	
MEPM-A18	10/18/2010	11:01	11.59	3.39	270.3	12	0.75	42111	
MEPM-A18	10/18/2010	14:40	12.09	2.98	403.7	12.4	0.5	40892	
MEPM-A18	10/19/2010	9:56	11.28	3.04	379.7	12	0.9	39723	
MEPM-A18	10/19/2010	14:15	9.8	3.13	376.6	12.4	0.64	35259	
MEPM-A18	10/20/2010	10:17	9.91	3.1	363.5	12.1	0.76	42957	
MEPM-A18	10/20/2010	13:59	11.86	3.05	434.2	12.5	0.58	39356	

Notes:

YSI Model Professional Plus Used

Water Level Probe Solinst 101 Used

Table 4-6
Area B – In-Situ Groundwater Parameters

Well ID	Date	Time	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Comments
ME-4A	9/20/2010	10:00	7.81	7.64	-230.6	15.5	0.07	2603	Baseline Monitoring
ME-4A	9/22/2010	9:51	6.25	5.57	75.4	13	9.83	13769	
ME-4A	9/22/2010	14:53	7.07	5.78	63.4	12.5	16.77	12876	
ME-4A	9/23/2010	10:16	6.14	5.68	84.2	12.9	7.5	12365	
ME-4A	9/23/2010	14:44	6.62	5.66	86.2	12.4	19.37	11790	
ME-4A	9/24/2010	9:32	5.48	5.44	97.2	14.1	14.75	12465	
ME-4A	9/24/2010	14:00	5.68	5.62	87.1	12.6	25.75	13519	
ME-4A	9/27/2010	9:57	6.42	5.18	76.8	12.2	7.49	15176	
ME-4A	9/27/2010	14:07	7.12	5.47	52.5	13.2	10.9	13181	
ME-4A	9/28/2010	12:03	6.92	5.38	102.5	15.1	10.96	10962	
ME-4A	9/28/2010	15:40	6.9	5.34	113.7	12.9	16.11	11894	
ME-4A	9/29/2010	12:15	6.22	5.63	68.3	14.6	3.56	7498	
ME-4A	9/29/2010	15:33	6.86	5.32	112.6	13.6	10.67	11229	
ME-4A	9/30/2010	10:49	6.7	5.34	69.1	12.9	2.86	11264	
ME-4A	9/30/2010	14:53	6.68	5.44	86.2	13.4	20.9	11168	
ME-4A	10/1/2010	9:47	7.63	5.42	70.8	14.6	0.87	9544	
ME-4A	10/4/2010	10:35	7.01	6.12	-17.7	16	0.18	6483	
ME-4A	10/4/2010	14:27	6.24	5.78	45.2	13.7	6.83	10907	
ME-4A	10/5/2010	10:53	7.39	5.9	1.1	13.8	0.15	9629	
ME-4A	10/5/2010	14:23	6.43	5.69	13.3	13	7.48	19641	
ME-4A	10/6/2010	10:54	6.38	6.04	-16.2	14.9	0.34	10787	
ME-4A	10/7/2010	10:14	5.95	5.64	50.4	14.8	0.37	11857	
ME-4A	10/7/2010	13:53	6.76	5.15	204.9	13.9	0.38	14978	
ME-4A	10/12/2010	11:03	7.39	6.66	252.6	14.2	11.3	22573	
ME-4A	10/12/2010	14:36	6.6	5.57	304.3	14.1	17.46	19662	
ME-4A	10/13/2010	10:05	6.78	6.02	334.8	14.3	10.16	21754	
ME-4A	10/13/2010	14:12	7.23	5.94	308.8	14.4	13.29	22565	
ME-4A	10/15/2010	8:33	7.06	6.45	312.7	15.2	17.14	15194	
ME-4A	10/15/2010	14:20	4.55	12.86	107.2	14.3	21.03	23028	
ME-4A	10/18/2010	11:18	3.55	*	*	*	*	*	* Well is leaking peroxide.
ME-4A	10/19/2010	*	*	*	*	*	*	*	*Pressure due to surrounding injections & leaks. Not monitoring today.
ME-4A	10/20/2010	14:55	4.99	13.64	361	15	26.52	70577	
ME-4A	10/20/2010	*AM	*	*	*	*	*	*	*Not monitoring due to surrounding leaks & possible pressure.
ME-4B	9/20/2010	10:05	7.85	6.93	-10.5	15.4	0.21	410.6	Baseline Monitoring
ME-4B	9/22/2010	10:01	5.81	6.72	-33.5	13.7	0.13	410.6	
ME-4B	9/22/2010	15:06	6.22	6.74	-11.3	14.1	0.35	417.6	
ME-4B	9/23/2010	10:35	5.95	6.5	-6.2	13.2	0.45	397.7	
ME-4B	9/23/2010	14:52	5.56	6.63	32	14.3	1.16	385	
ME-4B	9/24/2010	9:41	6.21	6.69	13.6	14	0.42	441	
ME-4B	9/24/2010	14:07	4.27	6.64	8.4	14.5	0.66	439.3	
ME-4B	9/27/2010	10:50	5.46	6.65	-41.8	13.7	0.22	407.8	
ME-4B	9/27/2010	14:15	6.25	6.7	-36.2	13.9	0.41	412.8	
ME-4B	9/28/2010	12:15	7.57	6.74	-15.5	14	0.21	390.6	
ME-4B	9/28/2010	15:48	6.37	6.67	17.6	13.7	0.19	387.3	
ME-4B	9/29/2010	12:21	6.34	6.68	-8.3	13.9	0.14	335.3	
ME-4B	9/29/2010	15:40	6.58	6.64	15.6	11.3	0.23	324.9	
ME-4B	9/30/2010	10:55	6.81	6.56	-20.5	13.7	0.12	842.7	
ME-4B	9/30/2010	15:01	5.94	6.63	-17.9	13.9	0.4	345.4	
ME-4B	10/1/2010	9:55	7.38	6.52	-31.3	13.4	0.11	316.8	
ME-4B	10/4/2010	10:43	7.17	6.8	-66.6	14.2	0.12	390	
ME-4B	10/4/2010	14:35	5.54	6.68	-47.9	11.6	0.32	383	
ME-4B	10/5/2010	11:03	7.18	6.69	-55.8	11.6	0.13	357.1	
ME-4B	10/5/2010	14:29	5.7	6.55	-41.8	11.9	0.29	356.7	
ME-4B	10/6/2010	11:03	6.77	6.44	-53	11.9	0.3	355.9	
ME-4B	10/7/2010	10:21	6.42	6.32	-15.3	11.9	0.4	368.9	
ME-4B	10/7/2010	14:06	6.62	6.39	2.2	12	0.38	367.4	
ME-4B	10/12/2010	11:11	7.06	6.43	-0.2	11.2	0.51	354.5	
ME-4B	10/12/2010	14:43	6.3	6.26	94.6	11.1	0.71	355	
ME-4B	10/13/2010	10:15	6.59	6.32	54.8	11.1	0.38	3754	
ME-4B	10/13/2010	14:22	6.9	6.33	30.1	11.2	0.46	375	
ME-4B	10/14/2010	10:35	6.71	6.66	-70.5	11.1	0.33	363	
ME-4B	10/15/2010	8:42	6.92	6.48	54.3	11.3	1.36	349.6	
ME-4B	10/15/2010	14:34	3.72	7.34	33.9	11.3	1.09	351.8	
ME-4B	10/18/2010	11:39	5.01	6.83	-85	11.5	0.07	302.6	
ME-4B	10/18/2010	15:27	3.95	6.42	-44.2	11.5	0.09	338.8	
ME-4B	10/19/2010	10:16	6.31	6.48	-55.2	11.2	0.07	278.6	
ME-4B	10/19/2010	14:42	3.62	6.57	-74.4	12.2	0.13	279.4	
ME-4B	10/20/2010	11:03	5.81	6.54	-41.1	11.6	0.09	301.2	
ME-4B	10/20/2010	15:05	4.86	7.98	151.7	11.4	0.13	303.6	

Table 4-6
Area B – In-Situ Groundwater Parameters

Well ID	Date	Time	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Comments
ME-B02D	9/20/2010	9:45	7.99	5.74	34.6	15.5	0.28	4242	Baseline Monitoring Well leaked and is under pressure, unable to monitor further
ME-B02S	9/20/2010	9:50	7.89	6.34	-42.5	14.9	0.52	2495	Baseline Monitoring Well leaked and is under pressure, unable to monitor further
MEPM-B10D	9/20/2010	9:30	10.19	2.89	497.3	14.7	0.28	8173	Baseline Monitoring
MEPM-B10D	9/20/2010	15:41	7.48	6.2	27.8	14.7	34.48	8755	
MEPM-B10D	9/21/2010	9:53	10.25	5.93	73.6	14.1	22.71	11321	
MEPM-B10D	9/21/2010	14:47	7.98	5.82	76.8	13	22.75	11373	
MEPM-B10D	9/22/2010	9:36	9.84	5.78	89.6	12.3	22.36	9070	
MEPM-B10D	9/22/2010	14:35	9.14	5.81	89.7	12.1	17.97	8972	
MEPM-B10D	9/23/2010	10:08	9.57	5.79	96.3	11.9	17.62	7611	
MEPM-B10D	9/23/2010	14:36	8.84	5.82	96.9	12.1	16.05	7533	
MEPM-B10D	9/24/2010	10:00	9.45	5.77	115.2	12.8	13.38	8217	
MEPM-B10D	9/24/2010	14:26	8.06	5.86	113.2	12.6	13.9	62.37	
MEPM-B10D	9/27/2010	10:22	9.25	5.92	66.5	12.6	9.99	7837	
MEPM-B10D	9/27/2010	14:33	9.13	5.98	56.6	12.5	10.26	7828	
MEPM-B10D	9/28/2010	12:29	9.94	5.96	81.3	12.9	8.02	7449	
MEPM-B10D	9/28/2010	15:59	9.64	5.97	74.7	12.3	7.59	7439	
MEPM-B10D	9/29/2010	12:37	9.53	6.29	41	12	2.05	6440	
MEPM-B10D	9/29/2010	15:55	9.47	6.32	55.4	12.2	1.37	6498	
MEPM-B10D	9/30/2010	11:18	9.79	6.2	-21.7	11.2	0.2	7288	
MEPM-B10D	9/30/2010	15:36	9.26	6.16	26.7	12.3	0.48	6649	
MEPM-B10D	10/1/2010	10:11	10.01	6.59	10.4	12.4	0.21	6089	
MEPM-B10D	10/4/2010	11:01	9.67	6.43	-18.6	15	0.12	7355	
MEPM-B10D	10/4/2010	15:25	9.16	6.35	-8.2	12.2	0.15	7284	
MEPM-B10D	10/5/2010	11:21	9.81	6.57	22	12.2	0.22	6790	
MEPM-B10D	10/5/2010	14:41	9.26	6.74	-60.6	12.2	0.32	6778	
MEPM-B10D	10/6/2010	11:17	9.52	5.87	11	11.4	0.51	11366	
MEPM-B10D	10/7/2010	10:38	9.37	6.4	-27.1	12.6	0.87	6983	
MEPM-B10D	10/7/2010	14:21	9.44	6.24	-67.3	11.4	1.12	9738	
MEPM-B10D	10/12/2010	11:32	9.56	4.69	116.2	11.3	1.24	19735	
MEPM-B10D	10/12/2010	15:08	9.39	5.85	-19	11.4	1.27	10894	
MEPM-B10D	10/13/2010	10:32	9.42	5.09	60.2	11.2	0.71	19470	
MEPM-B10D	10/13/2010	14:40	9.68	5.33	25.1	11.3	0.68	15987	
MEPM-B10D	10/14/2010	10:53	9.52	6.02	-35.3	11.6	0.67	11204	
MEPM-B10D	10/15/2010	8:50	9.78	4.68	194.3	11.4	8.18	18002	
MEPM-B10D	10/15/2010	15:08	8.15	5.6	382	13.1	33.77	6556	
MEPM-B10D	10/18/2010	12:01	8.79	4.61	412.5	11.8	12.19	14592	
MEPM-B10D	10/18/2010	15:43	7.91	4.86	432.3	12.3	31.69	8682	
MEPM-B10D	10/19/2010	10:32	9.1	5.55	405.1	12.3	29.89	5259	
MEPM-B10D	10/19/2010	14:58	8.07	5.76	379.7	12.8	33.68	4898	
MEPM-B10D	10/20/2010	10:52	9.18	5.38	422.5	12.1	26.22	5981	
MEPM-B10D	10/20/2010	15:23	8.51	5.37	426.7	12	23.28	6976	
MEPM-B10S	9/20/2010	9:26	10.22	7.36	-155.9	14.8	0.22	3870	Baseline Monitoring
MEPM-B10S	9/20/2010	15:45	*	6.6	77.6	13.9	36.85	6965	*Unable to get accurate water level- foam in probe tip
MEPM-B10S	9/21/2010	9:53	10.2	6.66	92.1	13	26.08	8772	
MEPM-B10S	9/21/2010	14:50	10	6.67	100.9	13.5	25.05	8660	
MEPM-B10S	9/22/2010	9:31	9.88	6.81	88.9	13.2	27.12	6571	
MEPM-B10S	9/22/2010	14:23	10.12	6.83	51.3	13.5	26.78	6362	
MEPM-B10S	9/23/2010	10:01	10.03	6.88	38.4	13.4	23.17	5230	
MEPM-B10S	9/23/2010	14:27	10.24	6.95	27.3	12.9	23.65	5301	
MEPM-B10S	9/24/2010	9:48	9.45	7.21	27.9	13	9.54	5699	
MEPM-B10S	9/24/2010	14:21	10.15	6.89	54.8	13.3	11.49	5682	
MEPM-B10S	9/27/2010	10:13	10.33	7.05	-43.3	12.7	0.12	6795	
MEPM-B10S	9/27/2010	14:28	10.23	7.05	-27.8	13.1	1.26	6203	
MEPM-B10S	9/28/2010	12:23	9.83	7.21	-19.6	13.1	0.14	6525	
MEPM-B10S	9/28/2010	15:53	9.97	8.02	-85.7	12.9	0.1	6960	
MEPM-B10S	9/29/2010	12:31	10.03	12.11	-277.3	12.9	0.07	9695	
MEPM-B10S	9/29/2010	15:49	9.89	13.24	-82.2	13.1	0.9	32470	
MEPM-B10S	9/30/2010	11:04	10.01	13.55	268.1	13.6	0.08	101667	
MEPM-B10S	9/30/2010	15:12	9.9	13.53	308.1	14.4	0.1	96408	
MEPM-B10S	10/1/2010	10:06	10.18	13.47	376.9	14.2	0.08	97781	
MEPM-B10S	10/4/2010	10:51	9.98	13.73	372.6	14.3	0.35	103621	
MEPM-B10S	10/4/2010	15:04	9.69	13.84	490.1	13.8	0.63	102085	
MEPM-B10S	10/5/2010	11:12	10.02	13.76	476.9	14.9	2.49	112756	
MEPM-B10S	10/5/2010	14:35	9.77	13.66	395.6	14.5	4.5	130052	
MEPM-B10S	10/6/2010	11:10	9.64	13.72	509.3	14.8	10.18	149680	
MEPM-B10S	10/7/2010	10:28	9.31	13.38	513.3	15.2	11.33	127550	
MEPM-B10S	10/7/2010	14:13	9.65	13.52	509.9	14.6	11.52	126560	

Table 4-6
Area B – In-Situ Groundwater Parameters

Well ID	Date	Time	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Comments
MEPM-B10S	10/12/2010	11:23	10	13.73	500.1	15.7	6.82	137080	
MEPM-B10S	10/12/2010	15:00	9.84	13.77	515.2	15.7	6.45	133641	
MEPM-B10S	10/13/2010	10:24	9.83	13.6	488.7	15.6	5.26	137513	
MEPM-B10S	10/13/2010	14:31	9.91	13.62	482.1	15.7	6.12	134324	
MEPM-B10S	10/14/2010	10:44	9.89	13.53	469.9	15.9	7.96	127199	
MEPM-B10S	10/14/2010	14:37	8.75	13.31	435.5	15.6	6.82	84041	
MEPM-B10S	10/15/2010	8:58	9.81	13.42	375.7	15.5	7.5	61382	
MEPM-B10S	10/15/2010	14:55	9.01	13.39	419.6	16.1	18.1	55637	
MEPM-B10S	10/18/2010	11:49	9.44	13.52	392.4	16.1	9.19	73170	
MEPM-B10S	10/18/2010	15:35	9.28	13.3	359.9	15.9	18.09	53024	
MEPM-B10S	10/19/2010	10:24	9.46	13.41	360.2	16.1	15.32	57162	
MEPM-B10S	10/19/2010	14:50	9.52	13.29	324.4	16.6	22.01	47276	
MEPM-B10S	10/20/2010	10:44	9.55	13.38	332.1	16.1	16.86	56164	
MEPM-B10S	10/20/2010	15:14	9.61	13.45	381.7	16.3	16.28	56159	
MEPM-B11	9/20/2010	9:02	9.95	6.72	-84.2	13	0.52	539	Baseline Monitoring
MEPM-B11	9/20/2010	15:34	9.31	6.55	-114.7	14.8	0.16	510	
MEPM-B11	9/21/2010	9:47	9.97	6.54	-84.4	13.3	0.35	872	
MEPM-B11	9/21/2010	14:52	9.64	6.2	-61.2	13	0.06	109.3	
MEPM-B11	9/22/2010	9:17	9.59	6.4	-68.9	12.4	0.12	961	
MEPM-B11	9/22/2010	14:11	9.84	6.33	55.2	11.2	0.08	1098	
MEPM-B11	9/23/2010	9:52	9.61	6.4	-59.7	11.7	0.16	838	
MEPM-B11	9/23/2010	14:20	9.95	6.37	-47.9	11.3	0.17	921	
MEPM-B11	9/24/2010	10:10	8.1	6.46	-44	12.7	0.23	785	
MEPM-B11	9/24/2010	14:34	8.56	6.34	-14.8	11.2	0.38	1053	
MEPM-B11	9/27/2010	10:35	9.82	6.45	-53.6	11.3	0.15	859	
MEPM-B11	9/27/2010	14:46	9.79	6.38	-39.9	11.3	0.2	971	
MEPM-B11	9/28/2010	12:37	9.63	6.47	-24.3	12.6	0.15	829	
MEPM-B11	9/28/2010	16:05	9.83	6.39	8.6	11.7	0.17	899	
MEPM-B11	9/29/2010	12:43	9.82	6.49	-33.1	11.8	0.15	783	
MEPM-B11	9/29/2010	16:04	9.79	6.44	-53.3	11.5	0.16	831	
MEPM-B11	9/30/2010	11:26	10.77	6.4	-94.1	11.9	0.17	872	
MEPM-B11	9/30/2010	15:45	9.71	6.36	-90	11.5	0.23	874	
MEPM-B11	10/1/2010	10:15	9.48	6.41	-79.4	11.8	0.23	866	
MEPM-B11	10/4/2010	11:10	9.81	6.4	-99.3	12.1	0.11	1110	
MEPM-B11	10/4/2010	15:35	9.58	6.37	-86.8	11.4	0.16	1096	
MEPM-B11	10/5/2010	11:32	9.82	6.46	-84.6	12.1	0.15	1034	
MEPM-B11	10/5/2010	14:52	9.43	6.44	-127.1	11.7	0.32	1013	
MEPM-B11	10/6/2010	11:27	9.61	6.4	-106	12.5	0.37	1011	
MEPM-B11	10/7/2010	10:45	9.49	6.21	-92.6	11.7	0.78	1125	
MEPM-B11	10/7/2010	14:29	9.95	12.5	-97.4	12.5	0.57	1090	
MEPM-B11	10/12/2010	11:40	9.62	6.04	-69.7	11.6	0.71	1244	
MEPM-B11	10/13/2010	10:44	9.59	6.11	-74.7	11.4	0.39	1327	
MEPM-B11	10/13/2010	14:59	9.62	6.12	-95.5	11.6	0.41	1269	
MEPM-B11	10/14/2010	11:02	9.57	6.28	-75.4	11.6	0.47	1280	
MEPM-B11	10/14/2010	14:45	7.43	6.44	-74.1	11.5	0.6	238.1	
MEPM-B11	10/15/2010	9:29	9.45	6.39	-107.5	11.8	0.59	880	
MEPM-B11	10/15/2010	15:17	8.82	6.22	140.8	11.4	0.81	875	
MEPM-B11	10/18/2010	12:10	8.84	6.36	92.8	11.6	0.2	698	
MEPM-B11	10/18/2010	16:05	8.62	6.29	-24.1	11.3	0.11	720	
MEPM-B11	10/19/2010	10:40	8.91	6.27	137.1	11.9	0.41	593.5	
MEPM-B11	10/19/2010	15:07	8.79	6.17	118.8	11.5	0.16	660.6	
MEPM-B11	10/20/2010	11:00	8.91	6.29	190.5	12.1	0.21	582.3	
MEPM-B11	10/20/2010	15:33	8.89	6.25	176.7	11.6	0.27	400.7	
MEOW-3	9/20/2010	9:55	7.11	6.5	-66.4	15.1	0.16	576.2	Baseline Monitoring
MEOW-3	9/20/2010	16:00	5.18	6.36	-67.9	15.2	0.95	599.1	
MEOW-3	9/21/2010	9:59	7.09	6.66	-126.8	14.4	0.14	958	
MEOW-3	9/21/2010	15:07	6.33	6.59	-102.2	14.5	0.09	912	
MEOW-3	9/22/2010	9:42	6.94	6.48	-61.1	14.9	0.14	615.3	
MEOW-3	9/22/2010	14:44	6.29	6.65	-79.6	14.7	0.1	658	
MEOW-3	9/23/2010	10:44	6.78	6.6	-70.1	14.6	0.26	563	
MEOW-3	9/23/2010	15:00	5.4	6.55	-57.3	14.7	0.2	551	
MEOW-3	9/24/2010	9:25	6.92	6.51	-56.2	14.7	0.16	600.9	
MEOW-3	9/24/2010	13:49	6.11	6.65	-60.2	14.7	0.21	610.8	
MEOW-3	9/27/2010	9:48	7.08	6.55	-59.3	14.5	0.15	596.7	
MEOW-3	9/27/2010	13:59	6.5	6.6	-57.7	14.5	0.34	627	
MEOW-3	9/28/2010	11:55	6.91	6.58	-42	14.9	0.12	576.2	
MEOW-3	9/28/2010	15:29	6.74	6.6	-31	14.6	0.09	613.4	
MEOW-3	9/29/2010	12:07	6.83	6.57	-32.1	15	0.14	528.8	
MEOW-3	9/29/2010	15:19	6.47	6.56	-41.9	14.8	0.21	540.8	
MEOW-3	9/30/2010	10:38	6.79	6.53	-44.6	14.8	0.12	546.7	
MEOW-3	9/30/2010	14:45	6.51	6.57	-95.2	14.5	0.08	572.1	

Table 4-6
Area B – In-Situ Groundwater Parameters

Well ID	Date	Time	Water Level (ft)	pH	ORP	Temperature (Degree C)	DO (mg/L)	Specific Conductivity (us/cm)	Comments
MEOW-3	10/1/2010	9:40	6.88	6.48	-87.2	14.8	0.14	521.3	
MEOW-3	10/4/2010	10:25	6.92	6.52	-82.9	14.2	0.11	609.6	
MEOW-3	10/4/2010	14:19	6.16	6.43	-68.6	14.3	0.12	635	
MEOW-3	10/5/2010	10:46	6.69	6.44	-57.9	14.3	0.14	5805	
MEOW-3	10/5/2010	14:14	6.44	6.36	-86.1	14.3	0.27	632	
MEOW-3	10/6/2010	10:47	5.95	6.41	-89.8	14.5	0.3	546.3	
MEOW-3	10/7/2010	9:58	5.31	6.31	-85.1	14.6	0.38	546.3	
MEOW-3	10/7/2010	13:42	6.1	6.33	-70.7	14.5	0.43	567	
MEOW-3	10/12/2010	10:54	6.66	6.11	-67.3	14.4	0.28	708	
MEOW-3	10/12/2010	14:24	6.46	6.63	-105.1	14.5	2.2	774	
MEOW-3	10/13/2010	9:50	6.61	6.1	-61.5	14.2	0.24	964	
MEOW-3	10/13/2010	14:01	6.59	6.11	-78.3	14.4	0.29	936	
MEOW-3	10/14/2010	10:26	6.6	6.37	-66.7	14.3	0.34	1041	
MEOW-3	10/14/2010	14:29	5.07	6.21	-54.2	14.2	0.34	1134	
MEOW-3	10/15/2010	9:38	6.09	6.59	-116.6	14	0.36	1064	
MEOW-3	10/15/2010	14:10	4.89	6.32	-51.9	13.8	0.28	1260	
MEOW-3	10/18/2010	11:17	5.62	6.45	-76.2	13.9	0.09	798	
MEOW-3	10/18/2010	15:19	4.69	6.3	-45.2	14	0.15	835	
MEOW-3	10/19/2010	10:08	6.08	6.39	-61.2	13.8	0.08	710	
MEOW-3	10/19/2010	14:29	4.83	6.46	-79.4	13.9	0.08	822	
MEOW-3	10/20/2010	10:28	6.06	6.28	-24.4	13.6	0.13	818	
MEOW-3	10/20/2010	14:37	5.1	6.34	-46.4	13.8	0.12	917	
MEB-S04	10/5/2010	11:51	5.47	7.24	-306.1	12.8	0.13	8642	
MEB-S04	10/6/2010	11:34	5.17	7.19	-266	12.7	0.35	1296	
MEB-S04	10/7/2010	10:53	4.76	7.08	-264.1	12.7	0.56	11756	
MEB-S04	10/7/2010	14:37	4.99	6.95	-227.4	12.6	0.49	11711	
MEB-S04	10/12/2010	11:51	5.29	6.87	-254.9	12.7	0.5	11106	
MEB-S04	10/13/2010	10:59	4.95	6.86	-253.8	12.6	0.34	11905	
MEB-S04	10/14/2010	11:11	5.26	7.13	-264.7	12.9	0.36	11268	
MEB-S04	10/14/2010	14:53	3.29	7.03	-213.8	12.8	0.58	12028	
MEB-S04	10/15/2010	9:50	4.63	6.89	-144.9	12.7	0.44	10422	
MEB-S04	10/15/2010	15:25	3.91	6.88	-60.3	12.7	0.39	10392	
MEB-S04	10/18/2010	12:19	2.76	6.94	-139.1	12.8	0.06	10071	
MEB-S04	10/18/2010	16:13	3.46	6.9	-118.9	12.7	0.08	10197	
MEB-S04	10/19/2010	10:52	4.97	6.94	-104.1	12.6	0.12	9277	
MEB-S04	10/19/2010	15:15	3.37	7.01	-118.7	12.7	0.1	9375	
MEB-S04	10/20/2010	11:08	3.16	7.09	-124.8	12.7	0.11	10121	
MEB-S04	10/20/2010	15:43	4.38	6.89	29.1	13.2	2.38	7940	
T03	10/5/2010	11:43	4.45	6.41	-47.3	13.1	0.16	686	
T03	10/6/2010	11:40	4.16	6.91	-221.9	13.1	0.27	633.9	
T03	10/7/2010	11:00	3.76	6.76	-215.5	13.2	0.42	702	
T03	10/7/2010	14:44	3.99	6.58	-172.7	13.3	0.39	699	
T03	10/12/2010	11:59	4.35	6.52	-201.8	13.5	0.42	697	
T03	10/13/2010	11:07	4.23	6.47	-198.6	13.4	0.3	736	
T03	10/14/2010	11:19	4.28	6.75	-205.1	13.4	0.3	697	
T03	10/14/2010	15:01	3.01	6.56	-161.2	13.2	0.47	686	
T03	10/15/2010	9:57	3.6	6.54	-112.2	13.7	0.4	576.3	
T03	10/15/2010	15:33	3.16	6.54	-56.9	13.2	0.32	573	
T03	10/18/2010	12:28	2.74	6.63	-109.8	13	0.06	753	
T03	10/18/2010	16:21	2.77	6.6	-93.8	13	0.07	724	
T03	10/19/2010	11:00	3.92	6.56	-91.7	13	0.09	688	
T03	10/19/2010	15:23	2.77	6.62	-102.8	13	0.11	677	
T03	10/20/2010	11:16	6.59	6.66	-113.3	13	0.1	784	
T03	10/20/2010	15:56	3.38	6.52	-29.1	13	0.19	759	

Notes:

YSI Model Professional Plus Used

Water Level Probe Solinst 101 Used

Appendix I

Photographs from ISCO Remedial Action

2008 ISCO Mobilization

EPA Region 1, New England AECOM

2008 Oxidant Handling and Batching

Persulfate solutions were prepared using the FMC LSE mixer.
Solutions were pumped from central mixing station to each Area.

EPA Region 1, New England

AECOM

2008 Drilling for ISCO Injection and Well Installation

Hollow stem auger rigs installed monitoring wells and some injection wells. Direct-push drill rigs were used for direct-push injections and installation of 1” injection wells.

EPA Region 1, New England

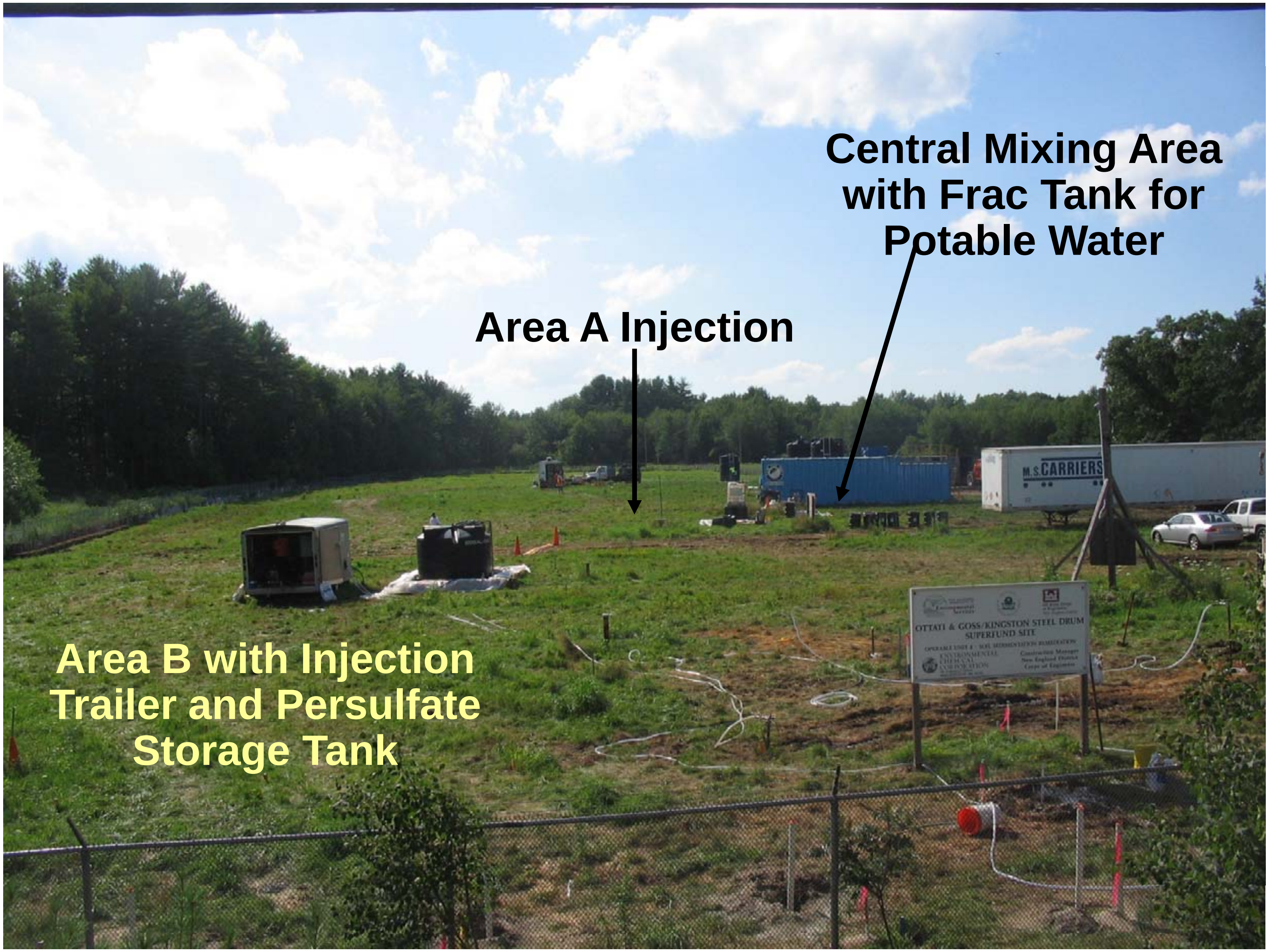
AECOM

2008 ISCO Injection

EPA
Region I, New England

AECOM

2008 View of Site During Remedial Action



EPA Region I, New England

AECOM

2008 Challenges

Heavy rains in July saturated surface soils and elevated the groundwater table, which increased daylighting in low permeability soil areas (Area B).

Direct-push rods experienced corrosion from the reaction with persulfate solutions.

Monitoring Activities

Water quality parameters were monitored in South Brook during ISCO injections due to the proximity to Area B.

Low flow groundwater sampling for performance monitoring was conducted in January 2009 and February 2010, four months following completion of ISCO injections in 2008 and 2009.

EPA Region 1, New England

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2009 ISCO

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Region 1, New England

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2009 ISCO

In 2009 all injections were performed into injection wells, using individual double-diaphragm pumps for each injection well pumping from IBC totes

EPA Region I, New England

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2010 ISCO

The 2010 ISCO approach included both hydrogen peroxide and activated persulfate. Persulfate solutions were batched using a different mix tank from 2008 and 2009.

EPA Region I, New England

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Appendix J

Compilation of Fixed Laboratory Data During Remedial Action

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A																			
Site ID		INJA-H15	INJA-I13	INJA-I21	GZ-11a	GZ-11a	GZ-11a	GZ-11a	GZ-11a	GZ-11b	GZ-11b	GZ-11b	GZ-11b	GZ-11b	ME-07	ME-07	ME-07	ME-07	ME-11d	ME-11d	ME-11d
Sample ID	NHAGQS	INJA-H15-1002	INJA-I13-1006	INJA-I21-1002	GZ11A-0806	GZ-11A-0901	GZ11A-0906	GZ-11A-1006	GZ-11A-1105	GZ11B-0806	GZ11B-0906	GZ-11B-1006	GZ-11B-1106	GZ-11B-RS-1106	ME-7-0806	ME-7-0906	ME-07-1006	ME-07-1106	ME-11D-0806	ME-11D-0906	ME-11D-1006
Sample Date		02/16/10	06/28/10	02/17/10	06/19/08	01/15/09	06/23/09	06/22/10	05/25/11	06/19/08	06/23/09	06/22/10	06/17/11	06/17/11	06/18/08	06/25/09	06/24/10	06/15/11	06/17/08	06/22/09	06/21/10
														field duplicate							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	1000	< 50	< 80	< 250	< 5	< 5	< 5	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	< 0.5
Chloromethane	30	880	< 80	5100	< 5	2800	2400	1300	41	< 0.5	540	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	5.2
Vinyl chloride	2	< 50	< 80	< 250	< 5	< 5	< 5	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	5.2	3
Bromomethane	10	120	< 80	650	< 5	44	52	290	3.2	< 0.5	7.7	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	0.62
Chloroethane	NS	36	< 80	110	< 5	24	16	< 80	< 5	< 0.5	0.8	< 0.5	< 0.5	< 0.5	2.2	< 5	< 5	< 5	2.8	0.74	11
Trichlorofluoromethane	2000	< 50	< 80	< 250	< 5	< 5	< 5	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	< 0.5
1,1-Dichloroethene	7	< 50	< 80	< 250	< 5	< 5	< 5	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	0.28
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 50	< 80	< 250	< 5	< 5	< 5	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	430	< 5	< 5	140	< 8.3	< 0.5	< 0.5
Acetone	6000	1400	< 160	3100	31	2100	1200	800	21	< 0.5	120	< 0.5	< 0.5	< 0.5	< 5	< 10	< 10	< 10	< 83	< 5	180
Carbon Disulfide	70	21	< 80	38	< 5	24	11	< 80	< 5	< 0.5	0.65	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	1.8
Methyl acetate	NS	< 50	< 80	< 250	4.9	16	10	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	< 0.5
Methylene chloride	5	16	< 80	< 250	1.3	20	< 5	< 80	< 5	0.11	7.4	< 0.5	< 0.5	0.3	0.15	< 5	< 5	4.3	< 8.3	< 0.5	3.1
trans-1,2-Dichloroethene	100	6.6	< 80	< 250	0.89	< 5		< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 5	< 5	< 8.3	0.14	0.85
Methyl tert-butyl ether	13	< 50	< 80	< 250	< 5	< 5	< 5	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	< 0.5
1,1-Dichloroethane	81	4.2	< 80	< 250	6.1	3.8	3.2	< 80	< 5	< 0.5	0.3	< 0.5	< 0.5	< 0.5	2.6	4	< 5	4.2	2.3	1.2	2.3
cis-1,2-Dichloroethene	70	82	1400	57	580	28	33	< 80	8.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.88	.77	< 5	< 5	2.2	26	60
2-Butanone	NS	110	< 160	220	18	62	45	< 160	< 10	< 0.5	1.6	< 0.5	< 0.5	< 0.5	< 5	< 10	< 10	< 10	< 83	< 5	19
Bromochloromethane	NS	< 50	< 80	< 250	< 5	< 5	< 5	< 80	< 5	< 0.5	0.17	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	< 0.5
Chloroform	70	< 50	< 80	< 250	< 5	1.4		< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 5	< 5	< 8.3	< 0.5	< 0.5
1,1,1-Trichloroethane	200	< 50	< 80	< 250	< 5	< 5		< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.3	1.4	< 5	< 5	< 8.3	< 0.5	< 0.5
Cyclohexane	NS	18	< 80	< 250	23	< 5	1.5	< 80	2.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.58	< 5	< 5	< 5	2.1	3.1	1.7
Carbon tetrachloride	5	< 50	< 80	< 250	< 5	< 5		< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 5	< 5	< 8.3	< 0.5	< 0.5
Benzene	5	5.2	< 80	< 250	3.3	< 5	0.73	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.25	< 5	< 5	< 5	< 8.3	0.82	2.4
1,2-Dichloroethane	5	< 50	< 80	< 250	< 5	4.3	2.9	< 80	< 5	< 0.5	0.92	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	0.3	1.9
Trichloroethene	5	4.6	100	43	170	3.5	9.8	< 80	2.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	4.3	< 5	< 5	6.7	< 8.3	6.6	8.5
Methylcyclohexane	NS	24	< 80	< 250	22	< 5	< 5	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.1	< 5	< 5	< 5	34	20	8.4
1,2-Dichloropropane	5	< 50	< 80	< 250	< 5	< 5	< 5	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	< 0.5
Bromodichloromethane	.6	< 50	< 80	< 250	< 5	< 5	< 5	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	< 0.5
4-Methyl-2-pentanone	NS	< 100	< 160	< 500	7.9	< 10	< 10	< 160	< 10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 10	< 10	< 10	< 83	< 5	2.4
Toluene	1000	7.8	86	120	1600	40	30	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	14		< 5	37	9	0.67	9
1,1,2-Trichloroethane	5	< 50	< 80	< 250	< 5	< 5	< 5	< 80	< 5	< 0.5	0.15	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	< 0.5
Tetrachloroethene	5	9.2	35	64	330	4.3	5.8	< 80	2.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.8	< 5	< 5	< 5	< 8.3	0.97	3.9
2-Hexanone	NS	< 100	< 160	< 500	< 10	< 10	< 10	< 160	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10	< 10	44	< 5	< 5
Chlorobenzene	100	< 50	< 80	< 250	< 5	0.33	0.58	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.27	< 5	< 5	< 5	4.3	2	1.3
Ethylbenzene	700	180	340	130	1200	32	69	< 80	54	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	16	0.5	< 5	52	37	57	62
o-Xylene	10000	7.1	130	75	1200	28	49	< 80	2.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	9.1	3.2	< 5	46	17	< 0.5	19
m,p-Xylene	10000	100	500	190	4500	100	130	< 80	13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	25	0.64	< 5	130	140	1	120
Styrene	100	< 50	< 80	< 250	< 5	< 5		< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 5	< 5	< 8.3	< 0.5	< 0.5
Isopropylbenzene	800	9.7	< 80	< 250	29	0.38	1	< 80	2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1	< 5	< 5	< 5	7.6	6	2.4
1,1,2,2-Tetrachloroethane	2	< 50	< 80	< 250	< 5	< 5	0.49	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	< 0.5
1,3-Dichlorobenzene	600	4.6	< 80	< 250	< 5	< 5	0.43	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	.43	< 5	< 5	< 5	3.9	3	1.3
1,4-Dichlorobenzene	75	13	< 80	< 250	< 5	0.65	1.2	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.7	< 5	< 5	< 5	15	10	5.1
1,2-Dichlorobenzene	600	81	60	< 250	120	3.5	6.5	< 80	8.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.7	< 5	< 5	3.5	11	10	11
1,2,4-Trichlorobenzene	70	21	< 80	< 250	17	0.65	< 5	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1	< 5	< 5	< 5	< 8.3	2.2	3.8
1,2,3-Trichlorobenzene	NS	< 50	< 80	< 250	4.4	< 5	< 5	< 80	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 8.3	< 0.5	0.39
Tetrahydrofuran	154	< 500	< 800	< 2500	< 50	< 50	< 50	< 800	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 830	< 50	61
Units	ug/L				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,4-Dioxane	3				7.7	< 2	2.4	1.4	0 .82	< 2	< 2	0.23	< 2	< 2	< 2	< 2	< 2	< 2	6.4	1.7	11

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)																
Site ID		ME-11d	ME-11d	ME-11s	ME-11s	ME-11s	ME-11s	ME-A01d	ME-A01d	ME-A01d	ME-A01d	ME-A01s	ME-A01s	ME-A02d	MEPM-A10	MEPM-A10	MEPM-A10	MEPM-A11
Sample ID	NHAGQS	ME-11D-RS-1006	ME-11D-1106	ME-11S-0806	ME-11S-0906	ME-11S-1006	ME-11S-1106	ME-AO1D-0901	ME-AO1D-RS-0901	ME-A01D-1105	ME-A01D-RS-1105	ME-AO1S-0901	ME-A01S-1105	ME-AO2D-1004	MEPM-A10-0901	MEPM-A10-1002	MEPM-A10-1105	MEPM-A11-0901
Sample Date		06/21/10	06/16/11	06/17/08	06/22/09	06/21/10	06/16/11	01/12/09	01/12/09	05/26/11	05/26/11	01/12/09	05/26/11	04/01/10	01/13/09	02/17/10	05/26/11	01/13/09
									field duplicate		field duplicate							
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.69	0.67	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	0.41
Chloromethane	30	7.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	250	190	< 5	< 5	0.47	< 5	< 10	1.3	0.17	< 2.5	6.2
Vinyl chloride	2	4.4	4.1	< 0.5	1.2	< 0.5	0.53	< 5	< 5	< 5	< 5	< 5	< 5	< 10	0.3	0.81	< 2.5	53
Bromomethane	10	0.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	51	51	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	0.64
Chloroethane	NS	15	0.97	2.1	1.9	< 0.5	< 0.5	6	5.8	< 5	< 5	< 5	< 5	< 10	< 0.5	0.2	< 2.5	100
Trichlorofluoromethane	2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.61	0.43	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	0.3
1,1-Dichloroethene	7	0.24	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	1.5	< 5	< 5	< 5	< 5	< 10	0.58	< 0.5	< 2.5	< 5
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	< 5
Acetone	6000	220	< 5	< 5	< 5	< 5	< 5	280	260	< 10	< 10	< 10	< 10	100	19	3.1	< 25	43
Carbon Disulfide	70	2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.3	< 5	< 5	< 5	< 5	< 5	2.5	0.23	0.26	< 2.5	2.9
Methyl acetate	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	35	36	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	< 5
Methylene chloride	5	4	< 0.5	.16	< 0.5	< 0.5	< 0.5	2.7	2.4	18	18	1.1	11	< 10	1.1	< 0.5	1.8	5.5
trans-1,2-Dichloroethene	100	1.1	0.34	< 0.5	0.12	< 0.5	< 0.5	1.9	2.1	< 5	< 5	< 5	< 5	2.1	.37	.17	< 2.5	< 5
Methyl tert-butyl ether	13	< 0.5	0.29	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	< 5
1,1-Dichloroethane	81	3.1	1.7	1.1	0.6	0.25	0.51	1.4	1.4	< 5	< 5	< 5	< 5	1.4	0.77	0.22	< 2.5	55
cis-1,2-Dichloroethene	70	70	22	0.81	1.5	1.4	1.6	240	190	150	110	3.3	< 5	170	23	2.5	31	260
2-Butanone	NS	25	< 5	< 5	< 5	< 5	< 5	22	22	< 10	< 10	< 10	< 10	12	5.3	< 5	< 25	10
Bromochloromethane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	< 5
Chloroform	70	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	< 5
1,1,1-Trichloroethane	200	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	5
Cyclohexane	NS	2.4	1.7	1.8	1.4	0.77	< 0.5	6.2	5.8	2.9	2.4	1.2	< 5	8.3	12	< 0.5	3.3	11
Carbon tetrachloride	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 0.5	0.036	< 2.5	< 5
Benzene	5	3	1.3	0.84	1.3	0.83	0.8	0.88	0.85	< 5	< 5	0.71	< 5	< 10	0.8	0.54	< 2.5	4.5
1,2-Dichloroethane	5	3	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	< 5
Trichloroethene	5	11	9.2	0.7	0.37	.41	0.74	3.4	3.6	47	38	5.9	< 5	60	68	5.9	40	3.3
Methylcyclohexane	NS	15	11	2.7	0.86	.43	< 0.5	12	12	6.9	5.9	< 5	< 5	26	18	< 0.5	< 2.5	12
1,2-Dichloropropane	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	< 5
Bromodichloromethane	.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	< 5
4-Methyl-2-pentanone	NS	3.7	< 5	< 5	< 5	< 5	< 5	< 10	< 10	< 10	< 10	< 10	< 10	2.7	2.2	< 5	< 25	3.1
Toluene	1000	12	0.62	0.16	< 0.5	< 0.5	< 0.5	36	33	98	77	0.36	< 5	60	220	7.9	130	53
1,1,2-Trichloroethane	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.41	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	< 5
Tetrachloroethene	5	4.9	2.3	< 0.5	< 0.5	< 0.5	< 0.5	3.2	2.9	140	120	5.1	5.1	91	120	8.8	78	1.4
2-Hexanone	NS	< 5	< 5	3.3	< 5	< 5	< 5	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 5	< 5	< 25	< 10
Chlorobenzene	100	1.6	1.8	1.8	2.4	1.4	1.4	0.7	.54	< 5	< 5	1.5	< 5	< 10	0.82	1.8	< 2.5	12
Ethylbenzene	700	77	35	< 0.5	< 0.5	< 0.5	0.31	77	69	100	85	11	2.3	100	320	10	130	550
o-Xylene	10000	32	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	46	43	91	75	< 5	< 5	45	280	9.3	120	45
m,p-Xylene	10000	140	1.1	< 0.5	< 0.5	< 0.5	< 0.5	120	110	350	220	0.94	4.2	200	1100	25	360	780
Styrene	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	3.9	3.2	< 5	< 5	< 10	< 0.5	< 0.5	9.7	< 5
Isopropylbenzene	800	3.2	3.3	2.8	3.6	1.5	1	9.5	8.6	3.8	2.9	0.52	< 5	7.6	16	0.74	6.5	15
1,1,2,2-Tetrachloroethane	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.1	1.8	< 5	< 5	< 5	< 5	< 10	< 0.5	< 0.5	< 2.5	< 5
1,3-Dichlorobenzene	600	1.6	1.8	0.74	0.83	0.35	0.51	2.8	2.6	< 5	< 5	0.4	< 5	4.2	2.3	0.48	1.4	4
1,4-Dichlorobenzene	75	6.2	5.4	3.6	4.4	1.9	2.5	5	4.6	3.9	2.8	1.3	< 5	6.2	4.6	1.3	3.5	19
1,2-Dichlorobenzene	600	14	11	2.5	3	1.4	1.8	19	18	18	14	2.3	< 5	25	32	1.8	15	8.9
1,2,4-Trichlorobenzene	70	5.3	4.3	< 0.5	0.2	< 0.5	0.3	8.7	7.7	9.1	7.4	.61	< 5	26	19	1.4	6.6	2.5
1,2,3-Trichlorobenzene	NS	0.55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.6	3.2	2.6	< 5	< 5	< 5	5.9	7.3	0.29	2	0.37
Tetrahydrofuran	154	91	< 50	< 50	< 50	< 50	27	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 50	3.9	< 250	< 50
Units	ug/L		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L				ug/L			ug/L			ug/L
1,4-Dioxane	3		0 .72	6.9	5.3	6	3.8	< 2				< 2			0.71			1

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)														
Site ID		MEPM-A11	MEPM-A11	MEPM-A11	MEPM-A12	MEPM-A12	MEPM-A12	MEPM-A13	MEPM-A13	MEPM-A13	MEPM-A14	MEPM-A14	MEPM-A14	MEPM-A14	MEPM-A14	MEPM-A15d
Sample ID	NHAGQS	MEPM-A11-1002	MEPM-A11-RS-1002	MEPM-A11-1105	MEPM-A12-0901	MEPM-A12-1004	MEPM-A12-1105	MEPM-A13-0901	MEPM-A13-1004	MEPM-A13-1105	MEPM-A14-0901	MEPM-A14-1002	MEPM-A14-1006	MEPM-A14-RS-1006	MEPM-A14-1105	MEPM-A15D-0901
Sample Date		02/17/10	02/17/10	05/26/11	01/13/09	04/01/10	05/26/11	01/14/09	04/01/10	05/26/11	01/13/09	02/17/10	06/25/10	06/25/10	05/26/11	01/14/09
			field duplicate											field duplicate		
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	1000	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	0.45	< 17	< 20	< 20	< 5	0.68
Chloromethane	30	< 25	< 25	< 5	12	< 5	< 5		2200	700	1000	13	< 20	< 20	2.9	5700
Vinyl chloride	2	51	48	7.9	< 5	36	< 5		< 130	< 5	< 5	26	80	83	2.9	< 5
Bromomethane	10	< 25	< 25	< 5	0.72	< 5	< 5		510	92	65	< 17	< 20	< 20	2.5	75
Chloroethane	NS	46	46	< 5	1.1	< 5	< 5		36	21	40	8	< 20	< 20	< 5	60
Trichlorofluoromethane	2000	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	0.47
1,1-Dichloroethene	7	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
Acetone	6000	43	35	< 10	18	< 10	< 10		1100	320	780	40	< 40	< 40	< 10	2200
Carbon Disulfide	70	2.4	2.5	< 5	< 5	< 5	< 5		< 130	11	12	2.3	< 20	< 20	< 5	14
Methyl acetate	NS	< 25	< 25	< 5	< 5	< 5	< 5		< 130	8	12	< 17	< 20	< 20	< 5	27
Methylene chloride	5	6.5	6.2	15	0.54	< 5	< 5		39	< 5	8.5	6.9	< 20	< 20	10	59
trans-1,2-Dichloroethene	100	< 25	< 25	< 5	< 5	1.4	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
Methyl tert-butyl ether	13	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
1,1-Dichloroethane	81	61	62	9.4	< 5	.53	< 5		< 130	3.4	3.9	8	< 20	9.9	< 5	11
cis-1,2-Dichloroethene	70	140	140	6	23	120	110		59	13	61	290	410	410	10	2.1
2-Butanone	NS	< 50	< 50	< 10	< 10	< 10	< 10		< 250	< 10	55	6.5	< 40	< 40	< 10	67
Bromochloromethane	NS	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
Chloroform	70	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
1,1,1-Trichloroethane	200	18	18	< 5	.57	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
Cyclohexane	NS	18	17	2.6	< 5	2.1	< 5		< 130	< 5	4.7	16	< 20	< 20	< 5	< 5
Carbon tetrachloride	5	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
Benzene	5	16	16	2.9	0.85	< 5	< 5		< 130	< 5	0.98	5.1	< 20	< 20	< 5	< 5
1,2-Dichloroethane	5	< 25	< 25	< 5	< 5	< 5	< 5		15	12	< 5	< 17	< 20	< 20	< 5	7.7
Trichloroethene	5	11	10	< 5	26	22	5.5		29	14	160	25	26	27	4.5	14
Methylcyclohexane	NS	30	27	5.3	5.7	2.5	< 5		< 130	< 5	11	23	< 20	19	< 5	2.9
1,2-Dichloropropane	5	< 25	3.7	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
Bromodichloromethane	.6	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
4-Methyl-2-pentanone	NS	3.9	4.1	< 10	< 10	< 10	< 10		< 250	< 10	< 10	3.1	< 40	< 40	< 10	< 10
Toluene	1000	29	28	63	15	1	3.1		18	14	84	13	20	21	2.4	29
1,1,2-Trichloroethane	5	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	4.7
Tetrachloroethene	5	2.8	2.6	< 5	37	4.4	9.1		< 130	3.7	65	22	< 20	8.6	2.9	24
2-Hexanone	NS	< 50	< 50	< 10	< 10	< 10	< 10		< 250	< 10	< 10	< 33	< 40	< 40	< 10	< 10
Chlorobenzene	100	15	15	5	0.69	0.67	< 5		< 130	2.1	0.93	2.8	< 20	< 20	< 5	0.42
Ethylbenzene	700	620	620	170	24	14	54		170	22	160	360	250	260	29	21
o-Xylene	10000	9.1	8.1	22	11	0.46	2.1		41	5.9	150	6.4	< 20	< 20	< 5	21
m,p-Xylene	10000	330	330	150	36	2.7	42		190	13	480	220	36	37	< 5	88
Styrene	100	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
Isopropylbenzene	800	20	19	6.8	3	1.1	< 5		< 130	2.4	5.4	16	9.9	9.1	2.4	1.5
1,1,2,2-Tetrachloroethane	2	< 25	< 25	< 5	< 5	< 5	< 5		< 130	< 5	< 5	< 17	< 20	< 20	< 5	< 5
1,3-Dichlorobenzene	600	4.5	4	2.1	1.8	0.72	< 5		< 130	< 5	1.5	4.6	< 20	< 20	< 5	0.8
1,4-Dichlorobenzene	75	23	22	8.8	7.6	2.8	2.9		< 130	< 5	3.7	13	< 20	< 20	2.2	1.4
1,2-Dichlorobenzene	600	13	13	4.8	6.3	2.5	7.2		< 130	9	19	57	22	21	6.9	5
1,2,4-Trichlorobenzene	70	< 25	< 25	2.8	1.7	< 5	< 5		< 130	< 5	9.4	19	15	17	6.5	2.9
1,2,3-Trichlorobenzene	NS	< 25	< 25	< 5	0.67	< 5	< 5		< 130	< 5	2.4	6.6	< 20	< 20	< 5	1.1
Tetrahydrofuran	154	< 250	< 250	< 50	< 50	< 50	< 50		< 1300	< 50	< 50	< 170	< 200	< 200	< 50	< 50
Units	ug/L				ug/L			ug/L			ug/L					ug/L
1,4-Dioxane	3				1.2			< 2			< 2					< 2

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)														
Site ID		MEPM-A15d	MEPM-A15d	MEPM-A15s	MEPM-A15s	MEPM-A15s	MEPM-A15s	MEPM-A15s	MEPM-A16	MEPM-A16	MEPM-A16	MEPM-A17	MEPM-A17	MEPM-A17	MEPM-A18	MEPM-A18
Sample ID	NHAGQS	MEPM-A15D-1006	MEPM-A15D-1105	MEPM-A15S-0901	MEPM-A15S-1002	MEPM-A15S-1004	MEPM-A15S-1006	MEPM-A15S-1105	MEPM-A16-0901	MEPM-A16-1004	MEPM-A16-1105	MEPM-A17-0901	MEPM-A17-1004	MEPM-A17-1105	MEPM-A18-0901	MEPM-A18-1002
Sample Date		06/28/10	05/25/11	01/14/09	02/17/10	04/01/10	06/28/10	05/25/11	01/15/09	04/01/10	05/25/11	01/15/09	04/01/10	05/26/11	01/15/09	02/16/10
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	1000	< 500	< 5	< 5	< 170	< 31	< 5	< 5	< 5	< 36	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	30	9800	200	1500	2500	470	1000	18	110	< 36	9	110	14	180	820	5200
Vinyl chloride	2	< 500	8.6	< 5	< 170	< 31	< 5	79	19	< 36	18	< 5	7.2	< 5	11	< 5
Bromomethane	10	2200	< 5	10	680	260	120	< 5	< 5	< 36	< 5	3.1	< 5	7.7	8.9	350
Chloroethane	NS	< 500	11	68	72	28	26	< 5	8.8	< 36	< 5	4.3	4.5	< 5	10	76
Trichlorofluoromethane	2000	< 500	< 5	< 5	< 170	< 31	< 5	< 5	< 5	< 36	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	7	< 500	2	< 5	< 170	< 31	< 5	< 5	< 5	< 36	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 500	< 5	< 5	< 170	< 31	5.1	< 5	< 5	< 36	2.9	< 5	< 5	< 5	< 5	< 5
Acetone	6000	5800	640	1300	3100	1700	400	13	200	130	27	140	11	170	480	2100
Carbon Disulfide	70	< 500	< 5	3.6	44	24	16	< 5	2.4	< 36	< 5	< 5	0.95	< 5	40	110
Methyl acetate	NS	< 500	< 5	22	< 170	< 31	< 5	< 5	6.2	< 36	< 5	< 5	< 5	< 5	6.6	18
Methylene chloride	5	< 500	< 5	47	< 170	< 31	10	< 5	5.8	< 36	< 5	1.1	1.3	< 5	43	120
trans-1,2-Dichloroethene	100	< 500	4.4	< 5	< 170	24	80	10	< 5	< 36	4.2	< 5	< 5	< 5	0.55	1.4
Methyl tert-butyl ether	13	< 500	< 5	< 5	< 170	< 31	< 5	< 5	< 5	< 36	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	81	< 500	5	11	< 170	5.4	5.4	3.5	16	28	24	1.4	4.1	< 5	10	12
cis-1,2-Dichloroethene	70	< 500	190	43	< 170	200	1200	940	150	630	630	10	37	9.5	170	8.4
2-Butanone	NS	< 1000	120	110	240	130	32	< 10	22	< 71	< 10	9.9	< 10	< 10	20	120
Bromochloromethane	NS	< 500	< 5	< 5	< 170	< 31	< 5	< 5	< 5	< 36	< 5	< 5	< 5	< 5	< 5	39
Chloroform	70	< 500	40	< 5	< 170	< 31	< 5	< 5	0.58	< 36	< 5	< 5	< 5	< 5	11	21
1,1,1-Trichloroethane	200	< 500	< 5	< 5	< 170	7.5	6.1	< 5	< 5	< 36	< 5	< 5	< 5	< 5	< 5	< 5
Cyclohexane	NS	< 500	< 5	23	< 170	< 31	< 5	7.9	< 5	4.8	3.1	2.5	5.7	< 5	< 5	< 5
Carbon tetrachloride	5	< 500	< 5	< 5	< 170	< 31	< 5	< 5	< 5	< 36	< 5	< 5	< 5	< 5	< 5	< 5
Benzene	5	< 500	4.4	.73	< 170	< 31	7.1	< 5	< 5	< 36	< 5	< 5	2.1	2.5	< 5	0.53
1,2-Dichloroethane	5	< 500	4.6	3.5	< 170	< 31	< 5	< 5	< 5	< 36	< 5	< 5	< 5	2.3	< 5	69
Trichloroethene	5	< 500	26	110	< 170	19	120	29	26	31	35	1.4	11	2.8	75	0.71
Methylcyclohexane	NS	< 500	< 5	18	< 170	6.3	5.9	5	8.1	16	< 5	7.1	9.2	< 5	< 5	1.1
1,2-Dichloropropane	5	< 500	5.8	< 5	< 170	< 31	< 5	< 5	< 5	< 36	< 5	< 5	< 5	< 5	< 5	9.3
Bromodichloromethane	.6	< 500	< 5	< 5	< 170	< 31	< 5	< 5	< 5	< 36	< 5	< 5	< 5	< 5	< 5	1.5
4-Methyl-2-pentanone	NS	< 1000	< 10	< 10	< 330	6	< 10	< 10	< 10	< 71	< 10	2.3	< 10	< 10	< 10	1.9
Toluene	1000	< 500	< 5	240	< 170	5.6	15	2.4	180	23	3.3	14	8.2	8.7	310	< 5
1,1,2-Trichloroethane	5	< 500	< 5	6.5	16	24	14	< 5	< 5	< 36	< 5	< 5	< 5	< 5	< 5	11
Tetrachloroethene	5	< 500	41	390	26	11	34	18	2.2	33	17	< 5	< 5	< 5	5.3	< 5
2-Hexanone	NS	< 1000	60	< 10	< 330	11	< 10	< 10	< 10	< 71	< 10	< 10	< 10	< 10	< 10	3.2
Chlorobenzene	100	< 500	< 5	3.4	< 170	< 31	< 5	< 5	3.2	6.1	2.7	1	2	18	3.3	0.36
Ethylbenzene	700	< 500	< 5	610	14	12	12	160	150	410	110	11	73	38	170	< 5
o-Xylene	10000	< 500	< 5	590	< 170	10	4.2	3.2	150	< 36	2.7	7.8	2.1	19	160	< 5
m,p-Xylene	10000	< 500	3.9	2300	13	26	7.1	3.3	270	250	6.8	29	9.5	51	420	< 5
Styrene	100	< 500	< 5	< 5	< 170	< 31	< 5	< 5	< 5	7.3	< 5	< 5	< 5	< 5	< 5	< 5
Isopropylbenzene	800	< 500	< 5	30	< 170	< 31	< 5	4.3	3.7	14	3.2	2.2	5	< 5	1.7	< 5
1,1,2,2-Tetrachloroethane	2	< 500	< 5	6	< 170	< 31	8.7	< 5	< 5	< 36	< 5	< 5	< 5	< 5	< 5	< 5
1,3-Dichlorobenzene	600	< 500	< 5	4.8	< 170	< 31	< 5	< 5	0.9	3.1	< 5	1.1	2.6	2.2	0.41	< 5
1,4-Dichlorobenzene	75	< 500	2.6	14	< 170	< 31	2.1	6	3.1	11	5.1	4.1	8.4	18	1.3	0.57
1,2-Dichlorobenzene	600	< 500	15	89	< 170	< 31	10	24	18	66	24	4	8.7	27	8	< 5
1,2,4-Trichlorobenzene	70	< 500	< 5	21	< 170	< 31	10	< 5	8.3	16	< 5	2.6	3.2	< 5	1.8	1.3
1,2,3-Trichlorobenzene	NS	< 500	< 5	5	< 170	< 31	3.1	2.6	2.4	< 36	2.5	< 5	< 5	< 5	0.62	< 5
Tetrahydrofuran	154	< 5000	< 50	< 50	< 1700	< 310	< 50	< 50	< 50	< 360	< 50	< 50	< 50	< 50	< 50	< 50
Units	ug/L			ug/L					ug/L		ug/L	ug/L			ug/L	
1,4-Dioxane	3			< 2					1.7		0.52	< 2			< 2	

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)		Area B															
Site ID		MEPM-A18	MEPM-A18	INJB-I02	INJB-J03d	INJB-J03s	INJB-K04d	INJB-S03	INJB-S03-RS	MEB-S04	MEB-S04	MEB-T03	ME-04a	ME-04a	ME-04a	ME-04a	ME-04b	ME-04b	ME-04b
Sample ID	NHAGQS	MEPM-A18-1006	MEPM-A18-1105	INJB-I02-1006	INJB-J03D-1006	INJB-J03S-1006	INJB-K04D-1004	INJB-S03-1004	INJB-S03-RS-1004	MEB-S04-1002	MEB-S04-1105	MEB-T03-1002	ME-4A-0806	ME-4A-0906	ME-04A-1006	ME-04A-1106	ME-4B-0806	ME-4B-0906	ME-04B-1006
Sample Date		06/23/10	05/25/11	06/28/10	06/28/10	06/28/10	04/01/10	04/01/10	04/01/10	02/16/10	05/24/11	02/16/10	06/16/08	06/22/09	06/21/10	06/14/11	06/16/08	06/23/09	06/21/10
									field duplicate										
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	1000	< 400	< 5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
Chloromethane	30	10000	3000	< 5	5.2	< 5	1100	< 5	< 5	< 50	< 5	< 5	< 5	1900	< 5	< 5	1.2	< 0.5	5.7
Vinyl chloride	2	< 400	< 5	< 5	47	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
Bromomethane	10	< 400	170	< 5	< 5	< 5	210	< 5	< 5	< 50	< 5	< 5	< 5	140	< 5	< 5	< 0.5	< 0.5	< 0.5
Chloroethane	NS	< 400	61	< 5	< 5	< 5	< 71	< 5	< 5	11	< 5	< 5	< 5	11	< 5	< 5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	2000	< 400	< 5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	7	< 400	< 5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 400	< 5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
Acetone	6000	2500	1700	< 10	210	< 10	1100	21	24	490	28	< 10	120	380	< 10	26	< 5	< 5	6.3
Carbon Disulfide	70	< 400	140	< 5	< 5	< 5	20	< 5	< 5	8.8	< 5	0.57	< 5	4.5	< 5	< 5	0.56	< 0.5	2.1
Methyl acetate	NS	< 400	< 5	< 5	< 5	19	< 71	< 5	1.6	20	< 5	< 5	< 5	6.8	< 5	< 5	< 0.5	< 0.5	< 0.5
Methylene chloride	5	< 400	< 5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	1.3	< 5	< 5	4	0.87	< 0.5	3.2
trans-1,2-Dichloroethene	100	< 400	< 5	< 5	11	< 5	10	< 5	< 5	< 50	< 5	< 5	1.5		< 5	< 5	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether	13	< 400	< 5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	0.77	0.47	0.28
1,1-Dichloroethane	81	< 400	5.1	< 5	11	< 5	18	< 5	< 5	6.4	< 5	< 5	2	0.55	< 5	< 5	0.41	0.27	0.28
cis-1,2-Dichloroethene	70	< 400	5.6	4	360	7.8	330	18	25	380	33	< 5	130	1.4	< 5	17	0.59	0.49	0.3
2-Butanone	NS	< 800	120	< 10	24	< 10	61	2.6	3.3	36	< 10	< 10	45	23	< 10	< 10	< 5	< 5	< 5
Bromochloromethane	NS	< 400	13	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
Chloroform	70	< 400	5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5		< 5	< 5	< 0.5	< 0.5	0.64
1,1,1-Trichloroethane	200	< 400	< 5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5		< 5	< 5	< 0.5	< 0.5	< 0.5
Cyclohexane	NS	< 400	< 5	< 5	7.6	< 5	< 71	< 5	< 5	6.3	< 5	< 5	4.1	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	5	< 400	< 5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5		< 5	< 5	< 0.5	< 0.5	< 0.5
Benzene	5	< 400	< 5	< 5	23	2.6	< 71	1.7	< 5	9.7	< 5	1.5	5.7	< 5	< 5	3.4	0.19	< 0.5	< 0.5
1,2-Dichloroethane	5	< 400	31	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
Trichloroethene	5	< 400	2.3	2.5	320	5.5	190	4.2	5.8	200	72	< 5	19	< 5	< 5	34	0.25	0.19	0.2
Methylcyclohexane	NS	< 400	< 5	4.5	31	15	22	< 5	< 5	27	< 5	2.5	31	8.6	< 5	5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	5	< 400	4.1	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	.6	< 400	< 5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	4.2	< 5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone	NS	< 800	< 10	< 10	8.8	< 10	15	< 10	< 10	< 100	< 10	< 10	2.1	< 10	< 10	< 10	< 5	< 5	< 5
Toluene	1000	< 400	2.2	< 5	1800	8.3	700	1.1	1.5	1200	49	0.35	290		< 5	63	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	5	< 400	< 5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	5	< 400	< 5	< 5	94	< 5	110	< 5	< 5	37	2.3	< 5	48	< 5	< 5	10	< 0.5	.15	< 0.5
2-Hexanone	NS	< 800	31	< 10	< 10	< 10	< 140	< 10	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	< 5	< 5	< 5
Chlorobenzene	100	< 400	< 5	< 5	30	< 5	17	110	140	480	68	12	< 5	< 5	< 5	19	< 0.5	< 0.5	< 0.5
Ethylbenzene	700	< 400	9	6.5	550	34	290	88	120	830	170	0.66	310	< 5	< 5	31	< 0.5	< 0.5	< 0.5
o-Xylene	10000	< 400	4	< 5	560	19	260	27	39	760	70	< 5	260	< 5	< 5	18	< 0.5	< 0.5	< 0.5
m,p-Xylene	10000	< 400	27	3	1800	59	700	54	77	1700	1300	< 5	1000		< 5	54	< 0.5	< 0.5	< 0.5
Styrene	100	< 400	< 5	< 5	130	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5		< 5	< 5	< 0.5	< 0.5	< 0.5
Isopropylbenzene	800	< 400	< 5	< 5	7.7	< 5	6.8	0.53	0.76	11	2.2	1.1	8.2	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	2	< 400	< 5	< 5	< 5	< 5	< 71	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	600	< 400	< 5	< 5	4.1	2.4	< 71	1	1.4	14	3.1	1.2	4.7	0.46	< 5	2.7	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	75	< 400	< 5	9.3	49	17	40	10	14	150	28	5.2	49	4	< 5	27	< 0.5	< 0.5	< 0.5
1,2-Dichlorobenzene	600	< 400	3.7	9.7	180	43	170	9.8	13	360	73	3.2	130	5.6	< 5	51	< 0.5	< 0.5	< 0.5
1,2,4-Trichlorobenzene	70	< 400	< 5	6.1	36	10	17	< 5	< 5	33	< 5	< 5	9.4	< 5	< 5	3.4	< 0.5	0.13	< 0.5
1,2,3-Trichlorobenzene	NS	< 400	< 5	< 5	3.6	< 5	< 71	< 5	< 5	< 50	< 5	< 5	0.7	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5
Tetrahydrofuran	154	< 4000	< 50	< 50	< 50	< 50	< 710	< 50	< 50	< 500	< 50	< 50	17	< 50	< 50	< 50	< 50	< 50	< 50
Units	ug/L									ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,4-Dioxane	3									29	24	29	32	12	15	6.6	3.5	2.4	3.8

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B (continued)																	
Site ID		ME-04b	ME-B01d	ME-B02d	ME-B02d	ME-B02d	ME-B02s	ME-B02s	ME-B02s	MEOW-3	MEOW-3	MEOW-3	MEOW-3	MEOW-3	MEOW-3	MEOW-4	MEOW-4	MEOW-4	MEOW-4
Sample ID	NHAGQS	ME-04B-1106	ME-B01D-1002	ME-BO2D-0901	ME-B02D-1002	ME-B02D-1105	ME-BO2S-0901	ME-B02S-1002	ME-B02S-1105	MEOW-3-0806	MEOW-3-RS-0806	MEOW-3-0901	MEOW-3-0906	MEOW-3-1006	MEOW-3-1106	MEOW-4-0806	MEOW-4-0906	MEOW-4-1006	MEOW-4-1106
Sample Date		06/14/11	02/16/10	01/14/09	02/16/10	05/25/11	01/14/09	02/15/10	05/24/11	06/16/08	06/16/08	01/15/09	06/22/09	06/21/10	06/14/11	06/16/08	06/23/09	06/22/10	06/14/11
											field duplicate								
Units	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	1000	< 0.5	< 5		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	30	10	700		620	2.4	1800	100	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	650	< 5
Vinyl chloride	2	0.35	23		< 25	< 5	< 5	4.8	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	10	< 0.5	19		55	< 5	200	15	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	26	< 5
Chloroethane	NS	< 0.5	14		9.1	< 5	31	4.7	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	28	< 5
Trichlorofluoromethane	2000	< 0.5	< 5		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	7	< 0.5	< 5		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 0.5	< 5		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Acetone	6000	30	590		450	76	650	160	31	12	12	8.7	< 10	< 10	< 10	8.1	< 10	360	< 10
Carbon Disulfide	70	12	68		59	4.9	41	30	11	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	30	< 5
Methyl acetate	NS	< 0.5	16		< 25	< 5	59	4.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	15	6.2	< 5	< 5
Methylene chloride	5	2.6	23		32	< 5	1.2	< 5	< 5	< 5	< 5	0.56	< 5	< 5	3.1	< 5	< 5	15	2.3
trans-1,2-Dichloroethene	100	< 0.5	8.7		< 25	< 5	1.6	2.7	< 5	< 5	< 5	< 5		< 5	< 5	< 5		< 5	< 5
Methyl tert-butyl ether	13	< 0.5	< 5		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	81	0.7	5.1		1.8	< 5	< 5	1.3	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.5	1.9	2.2	< 5
cis-1,2-Dichloroethene	70	0.62	150		25	31	42	44	4.6	< 5	< 5	< 5	< 5	< 5	< 5	21	15	< 5	12
2-Butanone	NS	< 5	39		27	< 10	43	17	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	25	< 10
Bromochloromethane	NS	< 0.5	0.88		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	4.3	< 5
Chloroform	70	0.99	< 5		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5		< 5	< 5	< 5		2.1	< 5
1,1,1-Trichloroethane	200	< 0.5	< 5		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5		< 5	< 5	< 5		< 5	< 5
Cyclohexane	NS	< 0.5	7.5		< 25	< 5	2.6	8.9	< 5	2	2.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride	5	< 0.5	< 5		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5		< 5	< 5	< 5		< 5	< 5
Benzene	5	< 0.5	5.1		2.6	< 5	3.4	3.2	< 5	3.7	3.5	1.6	< 5	< 5	< 5	3.6	3.2	< 5	< 5
1,2-Dichloroethane	5	1.4	3.5		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	14	< 5
Trichloroethene	5	0.35	58		7.7	29	140	160	57	< 5	< 5	< 5	< 5	< 5	< 5	23	22	< 5	16
Methylcyclohexane	NS	< 0.5	10		< 25	< 5	23	34	6.1	10	9.7	2.7	< 5	< 5	< 5	12	8.7	< 5	6.6
1,2-Dichloropropane	5	< 0.5	< 5		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane	.6	< 0.5	< 5		< 25	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	4	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone	NS	< 5	5.2		< 50	< 10	< 10	1.5	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	1000	0.42	93		14	35	59	100	13	2.9	2.8	0.94	< 5	< 5	< 5	83	61	< 5	42
1,1,2-Trichloroethane	5	0.4	4.5		2.5	< 5	< 5	2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 0.5	310		38	17	4.5	47	13	< 5	< 5	< 5	< 5	< 5	< 5	14	12	< 5	8.1
2-Hexanone	NS	< 5	2.6		< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Chlorobenzene	100	< 0.5	4.3		8.4	12	66	35	39	84	79	7.7	7	< 5	4.2	< 5	1.4	< 5	< 5
Ethylbenzene	700	< 0.5	110		16	64	140	150	49	1.6	1.6	4.9	4.2	< 5	< 5	66	49	3.3	33
o-Xylene	10000	< 0.5	120		4.6	62	40	99	25	7.1	6.8	0.71	< 5	< 5	< 5	48	34	< 5	24
m,p-Xylene	10000	0.25	370		17	160	260	320	69	310	310	15	2.4	< 5	< 5	190	120	8	82
Styrene	100	< 0.5	4.8		< 25	< 5	< 5	3.4	< 5	< 5	< 5	< 5		< 5	< 5	< 5		< 5	15
Isopropylbenzene	800	< 0.5	4.6		< 25	2.1	3	5.5	< 5	4.8	4.6	0.49	0.3	< 5	< 5	7	5.4	< 5	4.7
1,1,2,2-Tetrachloroethane	2	< 0.5	6.1		< 25	< 5	< 5	2.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,3-Dichlorobenzene	600	< 0.5	2.8		< 25	2.5	5.3	5.9	2.7	4.1	4.1	0.61	0.45	< 5	< 5	< 5	2.6	< 5	< 5
1,4-Dichlorobenzene	75	< 0.5	16		6.9	25	43	49	21	8.9	8.6	1.9	1.8	< 5	< 5	< 5	6.3	< 5	4.8
1,2-Dichlorobenzene	600	< 0.5	85		20	83	68	97	33	5.7	5.4	1.1	0.99	< 5	< 5	40	27	< 5	19
1,2,4-Trichlorobenzene	70	< 0.5	25		< 25	< 5	21	30	11	< 5	< 5	< 5	< 5	< 5	< 5	12	9.4	< 5	5.1
1,2,3-Trichlorobenzene	NS	< 0.5	5.1		< 25	< 5	3.2	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.1	< 5	< 5	< 5
Tetrahydrofuran	154	< 50	< 50		< 250	< 50	< 50	< 50	< 50	33	27	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,4-Dioxane	3	2.3	5.1	7	5.7	6.7	17	12	4.9	110	110	22	25	20	5.5	3.5	3.2	3	1.3

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B (continued)														
Site ID		MEOW-6	MEOW-6	MEOW-6	MEOW-6	MEOW-6	MEOW-6	MEPM-B10d	MEPM-B10d	MEPM-B10d	MEPM-B10d	MEPM-B10s	MEPM-B10s	MEPM-B10s	MEPM-B10s	MEPM-B11
Sample ID	NHAGQS	MEOW-6-0806	MEOW-6-0906	MEOW-6-1006	MEOW-6-RS-1006	MEOW-6-1106	MEOW-6-RS-1106	MEPM-B10D-0901	MEPM-B10D-1002	MEPM-B10D-1006	MEPM-B10D-1105	MEPM-B10S-0901	MEPM-B10S-1004	MEPM-B10S-1105	MEPM-B10S-RS-1105	MEPM-B11-0901
Sample Date		06/18/08	06/25/09	06/24/10	06/24/10	06/14/11	06/14/11	01/14/09	02/15/10	06/25/10	05/24/11	01/14/09	04/01/10	05/25/11	05/25/11	01/14/09
					field duplicate		field duplicate								field duplicate	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	
Dichlorodifluoromethane	1000	< 5	< 5	< 5	< 5	< 5	< 5		< 5	< 25	< 5		< 5	< 5	< 5	
Chloromethane	30	< 5	< 5	< 5	< 5	< 5	< 5		1200	490	5.4		77	54	76	
Vinyl chloride	2	< 5	21	17	18	22	23		< 5	< 25	< 5		< 5	< 5	< 5	
Bromomethane	10	< 5	< 5	< 5	< 5	< 5	< 5		190	< 25	< 5		18	10	17	
Chloroethane	NS	< 5	2.6	< 5	< 5	< 5	< 5		18	< 25	< 5		3	< 5	< 5	
Trichlorofluoromethane	2000	< 5	< 5	< 5	< 5	< 5	< 5		< 5	< 25	< 5		< 5	< 5	< 5	
1,1-Dichloroethene	7	< 5	< 5	< 5	< 5	< 5	< 5		< 5	< 25	< 5		< 5	< 5	< 5	
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	18	< 5	4.3	< 5	< 5	2		< 5	< 25	< 5		< 5	< 5	< 5	
Acetone	6000	6.2	< 10	80	84	< 10	< 10		1300	360	27		230	51	60	
Carbon Disulfide	70	< 5	< 5	< 5	< 5	< 5	< 5		18	< 25	< 5		11	4.5	< 5	
Methyl acetate	NS	< 5	< 5	< 5	< 5	< 5	< 5		14	< 25	< 5		5.1	25	< 5	
Methylene chloride	5	0.54	< 5	< 5	< 5	2.6	< 5		14	< 25	< 5		< 5	< 5	< 5	
trans-1,2-Dichloroethene	100	< 5		< 5	< 5	< 5	< 5		0.59	< 25	< 5		3.1	< 5	< 5	
Methyl tert-butyl ether	13	< 5	< 5	< 5	< 5	< 5	< 5		< 5	< 25	< 5		< 5	< 5	< 5	
1,1-Dichloroethane	81	8.5	8.7	8.7	9.2	6.6	7.1		2.3	< 25	< 5		3.1	2.7	4	
cis-1,2-Dichloroethene	70	0.73	48	63	63	53	57		3.9	56	4.1		99	13	16	
2-Butanone	NS	< 10	< 10	< 10	< 10	< 10	< 10		170	< 50	< 10		23	< 10	< 10	
Bromochloromethane	NS	< 5	< 5	< 5	< 5	< 5	< 5		0.84	< 25	< 5		< 5	< 5	< 5	
Chloroform	70	< 5		< 5	< 5	< 5	< 5		1.4	< 25	< 5		< 5	< 5	< 5	
1,1,1-Trichloroethane	200	< 5		< 5	< 5	< 5	< 5		< 5	< 25	< 5		< 5	< 5	< 5	
Cyclohexane	NS	2.4	< 5	< 5	< 5	< 5	< 5		6.4	< 25	< 5		5.3	< 5	< 5	
Carbon tetrachloride	5	< 5		< 5	< 5	< 5	< 5		< 5	< 25	< 5		< 5	< 5	< 5	
Benzene	5	0.97	< 5	< 5	< 5	< 5	< 5		1.2	< 25	< 5		5.3	< 5	< 5	
1,2-Dichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5		4.4	< 25	< 5		< 5	< 5	< 5	
Trichloroethene	5	3.3	28	14	15	7.9	8.2		36	110	4.9		70	11	14	
Methylcyclohexane	NS	9	7.5	4.8	5.5	3.2	3.3		11	< 25	< 5		22	8.3	10	
1,2-Dichloropropane	5	< 5	< 5	< 5	< 5	< 5	< 5		< 5	< 25	< 5		< 5	< 5	< 5	
Bromodichloromethane	.6	< 5	< 5	< 5	< 5	< 5	< 5		< 5	< 25	< 5		< 5	< 5	< 5	
4-Methyl-2-pentanone	NS	< 10	< 10	< 10	< 10	< 10	< 10		4.6	< 50	< 10		3	< 10	< 10	
Toluene	1000	0.95	1.3	< 5	< 5	< 5	< 5		1.4	440	18		33	24	11	
1,1,2-Trichloroethane	5	< 5	< 5	< 5	< 5	< 5	< 5		< 5	< 25	< 5		< 5	< 5	< 5	
Tetrachloroethene	5	0.64	2.2	< 5	< 5	< 5	< 5		19	33	< 5		41	6.2	8	
2-Hexanone	NS	< 10	< 10	< 10	< 10	< 10	< 10		< 10	< 50	< 10		< 10	< 10	< 10	
Chlorobenzene	100	< 5	1.6	< 5	< 5	< 5	< 5		0.43	< 25	< 5		3.3	< 5	< 5	
Ethylbenzene	700	50	81	79	80	42	44		1.5	100	5.1		20	14	6.7	
o-Xylene	10000	17	< 5	< 5	< 5	< 5	< 5		< 5	94	5		8.9	3.2	< 5	
m,p-Xylene	10000	97		14	15	7.5	7.6		< 5	370	17		18	5.3	5.5	
Styrene	100	< 5		< 5	< 5	< 5	< 5		< 5	17	< 5		< 5	< 5	< 5	
Isopropylbenzene	800	6	4.4	3.8	3.8	2.4	2.5		< 5	< 25	< 5		0.91	< 5	< 5	
1,1,2,2-Tetrachloroethane	2	< 5	< 5	< 5	< 5	< 5	< 5		< 5	< 25	< 5		1.1	< 5	< 5	
1,3-Dichlorobenzene	600	< 5	< 5	< 5	1.5	< 5	< 5		< 5	< 25	< 5		1.2	< 5	< 5	
1,4-Dichlorobenzene	75	< 5	< 5	4.5	4.6	3.5	3.7		< 5	8.5	< 5		20	7.3	9.7	
1,2-Dichlorobenzene	600	22	12	15	14	14	15		13	47	3.6		81	25	31	
1,2,4-Trichlorobenzene	70	5.8	< 5	4	3.7	2.3	2.2		5.8	8.8	< 5		23	< 5	11	
1,2,3-Trichlorobenzene	NS	0.45	< 5	< 5	< 5	< 5	< 5		< 5	< 25	< 5		2.4	< 5	< 5	
Tetrahydrofuran	154	< 50	< 50	< 50	< 50	< 50	< 50		< 50	< 250	< 50		< 50	< 50	< 50	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L		ug/L	ug/L		ug/L		ug/L
1,4-Dioxane	3	2.1	1.5	1.4	1.2	< 2		3.2	5.9		6.4	< 2		3.2		< 2

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B (cont)		Area C																				
Site ID		MEPM-B11	MEPM-B11	INJC-H14	B-4a	B-4a	B-4a	B-4a	B-4b	B-4b	B-4b	B-4b	B-5a	B-5a	B-5a	B-5a	B-5a	GZ-09	GZ-09	GZ-09	GZ-09	ME-C01	ME-C01	ME-C01
Sample ID	NHAGQS	MEPM-B11-1004	MEPM-B11-1105	INJC-H14-1004	B4A-0806	B4A-0906	B-4A-1006	B-4A-1106	B4B-0806	B4B-0906	B-4B-1006	B-4B-1106	B5A-0806	B-5A-0901	B5A-0906	B-5A-1006	B-5A-1105	GZ9-0806	GZ9-0906	GZ-09-1006	GZ-09-1106	ME-C01-0806	ME-C01-RS-0806	ME-C01-0906
Sample Date		04/01/10	05/25/11	04/07/10	06/18/08	06/23/09	06/22/10	06/16/11	06/18/08	06/23/09	06/22/10	06/16/11	06/17/08	01/13/09	06/29/09	06/25/10	05/23/11	06/19/08	06/30/09	06/24/10	06/17/11	06/17/08	06/18/08	06/29/09
																							field duplicate	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	1000	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	30	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.15	< 0.5	0.11
Vinyl chloride	2	< 5	< 5	< 5	< 0.5	0.4	< 0.5	0.4	< 0.5	< 0.5	< 0.5	< 0.5	3.4	3.4	5.1	2.1	< 0.5	3.4	8	1	6.8	< 0.5	< 0.5	< 0.5
Bromomethane	10	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	NS	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	2000	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	7	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	.23	< 0.5	< 0.5	0.61	< 0.5	0.46	< 0.5	< 0.5	< 0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acetone	6000	7.5	< 10	< 10	< 5	< 5	< 5	< 5	3	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	70	< 5	< 5	< 5	0.52	< 0.5	< 0.5	< 0.5	0.13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl acetate	NS	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	5	< 5	< 5	< 5	0.17	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.56	0.1	< 0.5	< 0.5	< 0.5	< 0.5	0.14	< 0.5
trans-1,2-Dichloroethene	100	< 5	< 5	< 5	0.35	0.28	0.21	0.29	< 0.5	< 0.5	< 0.5	< 0.5	0.15	0.11	0.16	< 0.5	< 0.5	1	2.4	0.3	1.5	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether	13	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethane	81	3.8	2.4	< 5	1.9	1.4	0.94	1.4	0.3	< 0.5	< 0.5	< 0.5	5.1	4.7	6.1	3.1	< 0.5	2	3.4	0.88	4	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene	70	11	19	< 5	1.1	0.66	0.47	0.64	< 0.5	< 0.5	< 0.5	< 0.5	8.9	8.3	9.8	5	< 0.5	3.1	7.6	1.1	5.8	< 0.5	< 0.5	< 0.5
2-Butanone	NS	< 10	< 10	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromochloromethane	NS	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	70	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	200	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cyclohexane	NS	1.2	< 5	< 5	0.2	0.21	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	5	< 5	< 5	< 5	.29	0.21	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.1	0.12	0.14	< 0.5	< 0.5	0.1	.21	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	5	< 5	< 5	< 5	.53	0.32	< 0.5	0.32	< 0.5	< 0.5	< 0.5	< 0.5	0.51	0.42	0.49	< 0.5	< 0.5	< 0.5	.58	< 0.5	0.46	< 0.5	< 0.5	< 0.5
Trichloroethene	5	7.5	2.4	< 5	1.1	0.64	0.4	0.7	< 0.5	< 0.5	< 0.5	< 0.5	9.7	8.8	11	4.1	< 0.5	6	18	2	13	< 0.5	< 0.5	< 0.5
Methylcyclohexane	NS	7.2	7.5	< 5	0.3	0.12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.19	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.33	0.41	< 0.5	< 0.5	< 0.5	0.28	< 0.5	.27	< 0.5	< 0.5	< 0.5
Bromodichloromethane	.6	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone	NS	< 10	< 10	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	1000	8.6	8.7	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	5	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	5	0.92	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.5	2.5	2.7	1.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Hexanone	NS	< 10	< 10	< 10	1.2	< 5	< 5	< 5	1.1	< 5	< 5	< 5	3	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	3	< 5	< 5
Chlorobenzene	100	1.5	5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	700	36	160	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.14	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	10000	14	7.8	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m,p-Xylene	10000	27	82	< 5	0.12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.14	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	100	< 5	2	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Isopropylbenzene	800	5	5.5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	2	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	600	3.4	5.3	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.34	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	75	21	39	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.34	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichlorobenzene	600	40	82	< 5	0.18	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.12	< 0.5	< 0.5	< 0.5	0.49	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2,4-Trichlorobenzene	70	6.3	< 5	< 5	< 0.5	0.14	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.89	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2,3-Trichlorobenzene	NS	< 5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.36	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrahydrofuran	154	< 50	< 50	< 50	< 50	< 50	< 50	18	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	46	< 50	< 50	< 50
Units	ug/L		ug/L		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L
1,4-Dioxane	3		1.5		15	13	13	11	0.6	0.26	< 2	< 2	11	11	17	12	8.4	3.9	11	4.3	14	0.46		< 2

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)																	
Site ID		ME-C01	MEC01	ME-C02	ME-C02	ME-C02	ME-C02	ME-C04	ME-C04	ME-C04	ME-C04	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05s
Sample ID	NHAGQS	ME-C01-1006	AE-GMZ-MEC01-1106	ME-C02-0806	ME-C02-0906	ME-C02-1006	ME-C02-1106	ME-C04-0806	ME-C04-0906	ME-C04-1006	ME-C04-1106	ME-C05D-0806	ME-C05D-0901	ME-C05D-RS-0901	ME-C05D-0906	ME-C05D-RS-0906	ME-C05D-1006	ME-C05D-1105	ME-C05S-0806
Sample Date		06/24/10	06/08/11	06/17/08	06/29/09	06/24/10	06/16/11	06/17/08	06/29/09	06/24/10	06/17/11	06/19/08	01/15/09	01/15/09	06/30/09	06/30/09	06/25/10	05/23/11	06/19/08
														field duplicate		field duplicate			
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	30	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.13	< 0.5	< 0.5	< 0.5	0.18	3	2.9	0.69	0.73	< 0.5	0.6	< 0.5
Vinyl chloride	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	5.2	3.3	2.7	4.9	< 0.5	0.72	0.7	0.48	< 0.5	0.45	< 0.5	< 0.5
Bromomethane	10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.26	0.42	0.36	0.34	< 0.5	< 0.5	< 0.5
Chloroethane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.89	0.27	< 0.5	< 0.5	< 0.5	0.17	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.21	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acetone	6000	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	9	10	6.3	7.6	< 5	< 5	< 5
Carbon Disulfide	70	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	11	11	2.4	2.6	< 0.5	< 0.5	< 0.5
Methyl acetate	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.12	3	3.5	0.36	0.44	< 0.5	< 0.5	< 0.5
trans-1,2-Dichloroethene	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.9	1.4	1.2	1.6	0.25	0.16	0.25	0.14	0.12	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether	13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethane	81	< 0.5	< 0.5	1.7	1.2	1	1.5	4.5	3.5	3	5.1	2.8	2.1	2.2	0.99	1	1.4	2.8	0.33
cis-1,2-Dichloroethene	70	< 0.5	< 0.5	0.49	0.4	0.42	0.62	3	2.5	2.2	2.9	0.96	0.69	0.72	0.51	0.5	0.63	1.5	0.18
2-Butanone	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromochloromethane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	70	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	5	5.2	.53	0.58	< 0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	200	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cyclohexane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.28	0.2	< 0.5	< 0.5	0.18	0.18	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.94	0.6	< 0.5	0.55	< 0.5	.37	0.38	0.18	0.2	< 0.5	< 0.5	< 0.5
Trichloroethene	5	< 0.5	< 0.5	0.12	0.12	< 0.5	< 0.5	3.8	4.6	3.3	3.8	2.7	1.9	1.8	1.4	1.3	1.3	3	0.44
Methylcyclohexane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.3	0.48	< 0.5	< 0.5	0.19	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.19	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.12	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.3	0.32	0.13	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.24	0.26	0.12	0.13	< 0.5	0.63	0.17
2-Hexanone	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	700	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.22	0.14	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	10000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m,p-Xylene	10000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.26	0.17	< 0.5	0.27	< 0.5	< 0.5	0.13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Isopropylbenzene	800	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.28	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	600	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	75	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichlorobenzene	600	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.24	0.26	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2,4-Trichlorobenzene	70	< 0.5	< 0.5	< 0.5	0.21	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2,3-Trichlorobenzene	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrahydrofuran	154	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	17	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,4-Dioxane	3	< 2	< 2	0.43	0.41	< 2	< 2	12	12	11	12	11	12	11	6	5.7	8.8	5.8	2.1

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)																	
Site ID		ME-C05s	ME-C05s	ME-C05s	ME-C05s	ME-C05s	ME-C06	ME-C06	ME-C06	ME-C06	ME-C08d	ME-C08d	ME-C08d	ME-C08d	ME-C08s	ME-C08s	ME-C08s	ME-C08s	ME-C09d
Sample ID	NHAGQS	ME-C05S-RS-0806	ME-C05S-0901	ME-C05S-0906	ME-C05S-1006	ME-C05S-1105	ME-C06-0806	ME-C06-0906	ME-C06-1006	ME-C06-1106	ME-C08D-0806	ME-C08D-0906	ME-C08D-1006	ME-C08D-1106	ME-C08S-0806	ME-C08S-0906	ME-C08S-1006	ME-C08S-1106	ME-C09D-0806
Sample Date		06/19/08	01/15/09	06/30/09	06/25/10	05/24/11	06/17/08	06/30/09	06/24/10	06/17/11	06/17/08	06/29/09	06/22/10	06/16/11	06/17/08	06/29/09	06/22/10	06/16/11	06/19/08
		field duplicate																	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	30	0.16	1.3	0.2	< 0.5	0.7	< 0.5	0.11	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	2	< 0.5	0.27	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.33	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	10	< 0.5	0.16	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.11	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acetone	6000	< 5	8.3	3.6	< 5	< 5	2.5	< 5	< 5	< 5	< 5	33	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide	70	< 0.5	3.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl acetate	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	5	< 0.5	0.56	< 0.5	< 0.5	< 0.5	0.16	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,2-Dichloroethene	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.37	< 0.5	0.29	0.35	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether	13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.8
1,1-Dichloroethane	81	0.35	0.7	< 0.5	< 0.5	0.82	0.16	< 0.5	< 0.5	< 0.5	0.2	< 0.5	< 0.5	< 0.5	0.11	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene	70	0.2	0.26	< 0.5	< 0.5	0.25	0.66	< 0.5	0.46	0.37	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromochloromethane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	70	< 0.5	0.75	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	200	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cyclohexane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	.21	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	5	0.46	0.5	< 0.5	< 0.5	< 0.5	0.18	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylcyclohexane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	1000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	5	0.17	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Hexanone	NS	< 5	< 5	< 5	< 5	< 5	1.6	< 5	< 5	< 5	2.8	< 5	< 5	< 5	1.4	< 5	< 5	< 5	< 5
Chlorobenzene	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.18	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	700	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	10000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m,p-Xylene	10000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Isopropylbenzene	800	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.11	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	600	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	75	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.28	0.14	< 0.5	< 0.5	< 0.5	0.1	< 0.5	< 0.5	0.11	0.11	< 0.5	< 0.5	< 0.5
1,2-Dichlorobenzene	600	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.25	0.16	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2,4-Trichlorobenzene	70	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2,3-Trichlorobenzene	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrahydrofuran	154	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	11	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,4-Dioxane	3	2.2	2.9	0.41	1.6	0.99	9.9	2.1	6.1	5.3	0.96	0.81	< 2	0.78	0.49	0.58	< 2	< 2	< 2

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)														
Site ID		ME-C09d	MEC09d	MEPM-C10	MEPM-C10	MEPM-C10	MEPM-C10	MEPM-C11	MEPM-C11	MEPM-C11	MEPM-C12	MEPM-C12	MEPM-C12	MEPM-C12	MEPM-C13d	MEPM-C13d
Sample ID	NHAGQS	ME-C09D-0906	AE-GMZ-MEC09d-1106	MEPM-C10-0901	MEPM-C10-RS-0901	MEPM-C10-1004	MEPM-C10-1105	MEPM-C11-0901	MEPM-C11-1002	MEPM-C11-1105	MEPM-C12-0901	MEPM-C12-1002	MEPM-C12-1105	MEPM-C12-RS-1105	MEPM-C13D-0901	MEPM-C13D-1002
Sample Date		06/30/09	06/06/11	01/13/09	01/13/09	04/07/10	05/23/11	01/13/09	02/16/10	05/23/11	01/13/09	02/15/10	05/24/11	05/24/11	01/15/09	02/16/10
					field duplicate									field duplicate		
Units	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	1000	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	0.031	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	30	< 0.5	< 0.5	4.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	2.1	< 0.5	< 0.5	< 0.5	24	27
Vinyl chloride	2	< 0.5	< 0.5	0.32		< 5	< 0.5	0.94	0.7	2	0.25	< 0.5	< 0.5	< 0.5	0.2	0.49
Bromomethane	10	< 0.5	< 0.5	0.18		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1	0.55
Chloroethane	NS	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	0.18	< 0.5	< 0.5	< 0.5	0.28	< 0.5
Trichlorofluoromethane	2000	< 0.5	< 0.5	0.11		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	7	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acetone	6000	28	< 5	7.7		< 10	< 5	2.8	2.1	< 5	4.7	0.82	< 5	< 5	33	23
Carbon Disulfide	70	< 0.5	< 0.5	0.42		< 5	< 0.5	1.9	0.2	< 0.5	3.1	0.24	< 0.5	< 0.5	8.9	1.2
Methyl acetate	NS	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	5	< 0.5	< 0.5	0.77		< 5	< 0.5	0.21	< 0.5	< 0.5	1.1	< 0.5	< 0.5	< 0.5	3.9	2.2
trans-1,2-Dichloroethene	100	< 0.5	< 0.5	< 0.5		< 5	< 0.5	0.94	0.57	0.82	0.32	0.43	< 0.5	< 0.5	< 0.5	0.17
Methyl tert-butyl ether	13	0.31	1.4	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethane	81	< 0.5	< 0.5	0.69		1.1	0.36	1.1	0.8	1.4	0.88	0.93	0.29	0.37	0.81	1.6
cis-1,2-Dichloroethene	70	< 0.5	< 0.5	0.87		1.4	0.78	.75	0.74	1.6	0.2	0.46	< 0.5	< 0.5	0.17	0.78
2-Butanone	NS	< 5	< 5	1.2		< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	2.1	1.6
Bromochloromethane	NS	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.24	< 0.5
Chloroform	70	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	0.62	< 0.5	< 0.5	< 0.5	1.5	1.1
1,1,1-Trichloroethane	200	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cyclohexane	NS	< 0.5	< 0.5	< 0.5		0.54	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.07
Carbon tetrachloride	5	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.037	< 0.5	< 0.5	< 0.5	0.04
Benzene	5	< 0.5	< 0.5	< 0.5		< 5	< 0.5	0.18	0.11	< 0.5	< 0.5	0.11	< 0.5	< 0.5	< 0.5	0.1
1,2-Dichloroethane	5	< 0.5	< 0.5	< 0.5		< 5	< 0.5	0.3	< 0.5	0.37	< 0.5	< 0.5	< 0.5	< 0.5	0.23	< 0.5
Trichloroethene	5	< 0.5	< 0.5	0.83		1.3	0.62	1.7	1.5	2.9	0.28	0.84	0.28	0.32	0.33	1.6
Methylcyclohexane	NS	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	5	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	.6	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone	NS	< 5	< 5	< 5		< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	1000	< 0.5	< 0.5	< 0.5		0.68	< 0.5	< 0.5	.059	< 0.5	< 0.5	.064	< 0.5	< 0.5	< 0.5	.054
1,1,2-Trichloroethane	5	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	5	< 0.5	< 0.5	1		< 5	1.4	< 0.5	.054	< 0.5	< 0.5	.034	< 0.5	< 0.5	< 0.5	.24
2-Hexanone	NS	< 5	< 5	< 5		< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	100	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	0.06	< 0.5	< 0.5	0.035	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	700	< 0.5	< 0.5	< 0.5		< 5	< 0.5	0.3	0.06	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.052
o-Xylene	10000	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m,p-Xylene	10000	< 0.5	< 0.5	< 0.5		< 5	< 0.5	0.13	0.18	< 0.5	< 0.5	0.059	< 0.5	< 0.5	< 0.5	0.067
Styrene	100	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Isopropylbenzene	800	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	0.033	< 0.5	< 0.5	0.042	< 0.5	< 0.5	< 0.5	0.053
1,1,2,2-Tetrachloroethane	2	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	600	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	0.12	< 0.5	< 0.5	0.049	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	75	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	0.048	< 0.5	< 0.5	0.047	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichlorobenzene	600	< 0.5	< 0.5	< 0.5		< 5	< 0.5	0.14	0.12	< 0.5	< 0.5	0.1	< 0.5	< 0.5	< 0.5	0.053
1,2,4-Trichlorobenzene	70	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	0.32	< 0.5	< 0.5	0.12	< 0.5	< 0.5	< 0.5	< 0.5
1,2,3-Trichlorobenzene	NS	< 0.5	< 0.5	< 0.5		< 5	< 0.5	< 0.5	0.14	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrahydrofuran	154	< 50	< 50	< 50		< 50	< 50	5	5.3	32	< 50	5.7	7.9	12	< 50	4.2
Units	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,4-Dioxane	3	< 2	< 2	< 2	< 2		0.37	9.8	7.8	8	6	7.1	1.5	1.6	3.7	6.4

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)									East of Route 125							
Site ID		MEPM-C13d	MEPM-C13s	MEPM-C13s	MEPM-C13s	MEPM-C13s	MW-B1	MW-B1	MW-B1	MW-B1	GZ-04a	GZ-04a	GZ-04a	GZ-04a	GZ-04a	GZ-04a	GZ-04a	GZ-04b
Sample ID	NHAGQS	MEPM-C13D-1105	MEPM-C13S-0901	MEPM-C13S-1002	MEPM-C13S-RS-1002	MEPM-C13S-1105	MW-B1-0806	MW-B1-0906	MW-B1-1006	MW-B1-1106	GZ4A-0806	GZ4A-0906	GZ4A-RS-0906	GZ-04A-1006	GZ-04A-RS-1006	GZ-04A-1106	GZ-04A-RS-1106	GZ4B-0806
Sample Date		05/24/11	01/15/09	02/15/10	02/15/10	05/23/11	06/19/08	06/29/09	06/24/10	06/15/11	06/18/08	06/24/09	06/24/09	06/23/10	06/23/10	06/15/11	06/15/11	06/18/08
					field duplicate								field duplicate		field duplicate		field duplicate	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L
Dichlorodifluoromethane	1000	< 0.5	0.12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
Chloromethane	30	0.3	< 0.5	< 0.5	< 0.5	< 0.5	0.11	0.13	< 0.5	< 0.5	< 5	130	130	< 5	< 5	< 5		< 5
Vinyl chloride	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
Bromomethane	10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
Chloroethane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.4	14	16	< 5	< 5	< 5		13
Trichlorofluoromethane	2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
1,1-Dichloroethene	7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
Acetone	6000	< 5	5.6	< 5	1.2	< 5	< 5	< 5	< 5	< 5	9.5	190	390	< 10	< 10	< 10		12
Carbon Disulfide	70	< 0.5	< 0.5	0.18	0.18	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	1.6	1.6	< 5	< 5	< 5		< 5
Methyl acetate	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	5.2	5	< 5	< 5	< 5		< 5
Methylene chloride	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.12	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	3		1.2
trans-1,2-Dichloroethene	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5			< 5	< 5	< 5		< 5
Methyl tert-butyl ether	13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
1,1-Dichloroethane	81	1.3	0.33	0.24	0.25	0.75	5.3	4.7	2	3.3	3.9	5.1	5	4.1	< 5	2.7		< 5
cis-1,2-Dichloroethene	70	0.69	< 0.5	0.11	0.12	< 0.5	0.6	0.51	0.21	0.49	0.97	2.4	2.4	2.8	< 5	2.8		< 5
2-Butanone	NS	< 5	0.92	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	15	13	< 10	< 10	< 10		< 10
Bromochloromethane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
Chloroform	70	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5			< 5	< 5	< 5		< 5
1,1,1-Trichloroethane	200	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5			< 5	< 5	< 5		< 5
Cyclohexane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		3.3
Carbon tetrachloride	5	< 0.5	< 0.5	0.05	0.033	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5			< 5	< 5	< 5		< 5
Benzene	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.84	< 5	< 5	< 5	< 5	< 5		40
1,2-Dichloroethane	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	1.8	1.7	< 5	< 5	< 5		< 5
Trichloroethene	5	1	< 0.5	0.076	0.076	< 0.5	0.28	0.19	< 0.5	< 0.5	3.6	6.4	6.6	6.9	< 5	4		< 5
Methylcyclohexane	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	4.8	4.8	4.9	4.9	< 5	< 5		< 5
1,2-Dichloropropane	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
Bromodichloromethane	.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
4-Methyl-2-pentanone	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10	< 10	< 10	< 10	< 10		< 10
Toluene	1000	< 0.5	< 0.5	.041	.038	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.56	5.1	5.2	< 5	< 5	< 5		9.6
1,1,2-Trichloroethane	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
Tetrachloroethene	5	.99	.13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.42	< 5	< 5	< 5	< 5	< 5		< 5
2-Hexanone	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10	< 10	< 10	< 10	< 10		< 10
Chlorobenzene	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.3	3.5	3.5	< 5	< 5	< 5		< 5
Ethylbenzene	700	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	2.7	2.7	2.8	< 5	< 5		160
o-Xylene	10000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	4.4	2	1.9	< 5	< 5	< 5		220
m,p-Xylene	10000	< 0.5	< 0.5	0.032	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	18	9.7	9.7	< 5	< 5	< 5		780
Styrene	100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5			< 5	< 5	< 5		< 5
Isopropylbenzene	800	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.6	1.2	1.2	< 5	< 5	< 5		13
1,1,2,2-Tetrachloroethane	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
1,3-Dichlorobenzene	600	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	.96	0.99	0.99	< 5	< 5	< 5		1.9
1,4-Dichlorobenzene	75	< 0.5	< 0.5	0.037	0.02	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	4.4	5.7	5.6	5.6	< 5	< 5		5.6
1,2-Dichlorobenzene	600	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	7.7	10	9.6	13	< 5	6.1		28
1,2,4-Trichlorobenzene	70	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.3	< 5	< 5	2.9	< 5	< 5		2.9
1,2,3-Trichlorobenzene	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5		< 5
Tetrahydrofuran	154	14	< 50	2.3	2.2	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50		310
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L
1,4-Dioxane	3	3.2	< 2	0.73	0.75	0.34	1.9	2.8	3.1	.98	4	1.1	1	< 2		2.4	2.6	200

NOTE: NS = none specified

Table J-1
Groundwater VOCs and 1,4-Dioxane Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		East of Route 125 (continued)															
Site ID		GZ-04b	GZ-04b	GZ-04b	MEOW-1	MEOW-1	MEOW-1	MEOW-1	MEOW-2	MEOW-2	MEOW-2	MEOW-2	MEOW-2	W-20	W-20	W-20	W-20
Sample ID	NHAGQS	GZ4B-0906	GZ-04B-1006	GZ-04B-1106	MEOW-1-0806	MEOW-1-0906	MEOW-1-1006	MEOW-1-1106	MEOW-2-0806	MEOW-2-0906	MEOW-2-RS-0906	MEOW-2-1006	MEOW-2-1106	W20-0806	W20-0906	W-20-1006	W-20-1106
Sample Date		06/24/09	06/23/10	06/15/11	06/18/08	06/24/09	06/23/10	06/15/11	06/18/08	06/24/09	06/24/09	06/23/10	06/15/11	06/18/08	06/25/09	06/23/10	06/15/11
											field duplicate						
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Dichlorodifluoromethane	1000	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	30	< 5	< 5	2.7	< 12.5	350	120	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl chloride	2	< 5	< 5	< 5	< 12.5	9.4	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	3.8
Bromomethane	10	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	NS	9.2	< 5	< 5	< 12.5	5.2	< 25	< 5	0.47	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorofluoromethane	2000	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	7	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Acetone	6000	< 10	< 10	< 10	< 130	110	170	< 10	2.7	< 5	< 5	< 10	< 10	< 10	< 10	< 10	< 10
Carbon Disulfide	70	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl acetate	NS	< 5	< 5	< 5	< 12.5	16	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene chloride	5	< 5	< 5	3.3	4.6	< 5	< 25	< 5	0.14	0.54	0.58	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	100		< 5	< 5	< 12.5	0.53	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5		< 5	< 5
Methyl tert-butyl ether	13	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	81	0.59	< 5	< 5	5	3	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	1.7	0.51	< 5	< 5
cis-1,2-Dichloroethene	70	0.44	< 5	< 5	47	26	60	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	2.1	< 5	8.2
2-Butanone	NS	3.1	< 10	< 10	< 130	8.9	< 50	< 10	< 5	< 5	< 5	< 10	< 10	< 10	2.9	< 10	< 10
Bromochloromethane	NS	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform	70		< 5	< 5	< 12.5		< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5		< 5	< 5
1,1,1-Trichloroethane	200		< 5	< 5	< 12.5		< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5		< 5	< 5
Cyclohexane	NS	1.8	< 5	< 5	< 12.5	< 5	< 25	< 5	1.8	0.11	< 0.5	< 5	< 5	8.8	7.8	< 5	< 5
Carbon tetrachloride	5		< 5	< 5	< 12.5		< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5		< 5	< 5
Benzene	5	26	< 5	< 5	< 12.5	2.1	< 25	< 5	0.54	0.1	< 0.5	< 5	< 5	1.2	1.6	< 5	< 5
1,2-Dichloroethane	5	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene	5	< 5	< 5	< 5	20	11	21	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Methylcyclohexane	NS	2.5	< 5	< 5	36	25	< 25	< 5	1.9	0.17	< 0.5	< 5	< 5	32	21	< 5	< 5
1,2-Dichloropropane	5	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane	.6	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone	NS	< 10	< 10	< 10	< 130	2.7	< 50	< 10	< 5	< 5	< 5	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	1000	5.3	< 5	< 5	160	58	200	< 5	0.24	0.28	0.22	< 5	< 5	1.5	0.44	< 5	< 5
1,1,2-Trichloroethane	5	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	5	< 5	< 5	< 5	14	8.3	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
2-Hexanone	NS	< 10	< 10	< 10	< 130	< 10	< 50	< 10	2.8	< 5	< 5	< 10	< 10	< 10	< 10	< 10	< 10
Chlorobenzene	100	12	< 5	< 5	5	5.1	< 25	< 5	12	0.84	0.78	< 5	2.1	2.7	2.7	< 5	< 5
Ethylbenzene	700	83	< 5	7.7	120	68	210	< 5	< 0.5	0.18	< 0.5	< 5	< 5	< 5	0.35	< 5	< 5
o-Xylene	10000	110	< 5	< 5	100	50	130	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	1.1	< 5	< 5	< 5
m,p-Xylene	10000	430	< 5	< 5	380	160	520	< 5	0.73	0.12	< 0.5	< 5	< 5	180	0.92	< 5	< 5
Styrene	100		< 5	< 5	< 12.5	13	35	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5		< 5	< 5
Isopropylbenzene	800	9.9	< 5	< 5	9.2	7.4	< 25	< 5	0.22	< 0.5	< 0.5	< 5	< 5	7.9	7.6	< 5	4
1,1,2,2-Tetrachloroethane	2	< 5	< 5	< 5	< 12.5	< 5	< 25	< 5	< 0.5	< 0.5	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
1,3-Dichlorobenzene	600	1.5	< 5	< 5	< 12.5	< 5	< 25	< 5	0.68	0.17	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
1,4-Dichlorobenzene	75	4.1	< 5	< 5	< 12.5	10	29	< 5	5.6	0.46	0.35	< 5	< 5	< 5	13	< 5	5.7
1,2-Dichlorobenzene	600	20	< 5	< 5	57	43	120	< 5	1.3	0.13	< 0.5	< 5	< 5	11	7.8	< 5	4.2
1,2,4-Trichlorobenzene	70	< 5	< 5	< 5	20	15	14	< 5	< 0.5	0.17	< 0.5	< 5	< 5	1.6	< 5	< 5	< 5
1,2,3-Trichlorobenzene	NS	< 5	< 5	< 5	2.8	< 5	< 25	< 5	< 0.5	0.17	< 0.5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrahydrofuran	154	320	< 50	< 50	< 1300	< 50	< 250	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,4-Dioxane	3	190	140	95	19	13	11	8	2.2	0.51		1.8	< 2	3.7	4.7	4.6	1.6

NOTE: NS = none specified

Table J-2
Groundwater SVOCs Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A												
Site ID	Interim	GZ-11a	GZ-11a	GZ-11a	GZ-11b	GZ-11b	GZ-11b	GZ-11b	GZ-11b	ME-07	ME-07	ME-07	ME-07	ME-11d
Sample ID	Cleanup	GZ11A-0806	GZ11A-0906	GZ-11A-1006	GZ11B-0806	GZ11B-0906	GZ-11B-1006	GZ-11B-1106	GZ-11B-RS-1106	ME-7-0806	ME-7-0906	ME-07-1006	ME-07-1106	ME-11D-0806
Sample Date	Level	06/19/08	06/23/09	06/22/10	06/19/08	06/23/09	06/22/10	06/17/11	06/17/11	06/18/08	06/25/09	06/24/10	06/15/11	06/17/08
									field duplicate					
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Benzaldehyde		< 5.3	30	17	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
Phenol		< 5.3	11	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
2-Chlorophenol		< 5.3	< 5.6	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
2-Methylphenol		8.7	6.4	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
Acetophenone		< 5.3	120	88	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
4-Methylphenol		21	7.9	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
2,4-Dimethylphenol		16	21	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	2	< 5	4.4
2,4-Dichlorophenol		< 5.3	< 5.6	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
Naphthalene	20	55	19	2	0.048	0.061	< 5	< 5	< 5	0.79	0.29	6.9	< 5	7.4
Hexachlorobutadiene	0.5	< 0.21	< 1.3	< 5	< 0.22	< 0.22	< 5	< 5	< 5	< 0.21	< .41	< 5	< 5	< 0.2
4-Chloro-3-methylphenol		< 5.3	< 5.6	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
2-Methylnaphthalene		24	6.6	1.1	< 0.11	< 0.11	< 5	< 5	< 5	1.5	0.11	8.6	< 5	10
2,4,6-Trichlorophenol		< 5.3	< 5.6	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
2,4,5-Trichlorophenol		3	< 5.6	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
1,1'-Biphenyl		5.6	2.8	< 5	< 5.4	< 5.6	< 5	< 5	< 5	0.97	< 5.1	2.6	< 5	6.6
Acenaphthylene		< 0.11	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1
Acenaphthene		0.6	0.21	< 5	< 0.11	< 0.11	< 5	< 5	< 5	0.2	< 0.21	< 5	< 5	0.38
Dibenzofuran		< 5.3	< 5.6	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
Diethylphthalate		< 5.3	< 5.6	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	1.7
Fluorene		0.56	0.29	< 5	< 0.11	< 0.11	< 5	< 5	< 5	0.23	0.039	< 5	< 5	0.4
N-Nitrosodiphenylamine		< 5.3	< 5.6	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
Pentachlorophenol		30	1.9	< 10	< 0.22	< 0.22	< 10	< 10	< 10	< 0.21	< .41	< 10	< 10	< 0.21
Phenanthrene		< 0.11	0.5	< 5	< 0.11	< 0.11	< 5	< 5	< 5	0.23	0.087	< 5	< 5	0.11
Anthracene		< 0.11	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	0.053	< 0.21	< 5	< 5	< 0.1
Di-n-butylphthalate		< 5.3	< 5.6	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
Fluoranthene		0.032	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1
Pyrene		< 1.1	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.21	< 5	< 5	0.03
Butylbenzylphthalate		< 5.3	< 5.6	< 5	< 5.4	< 5.6	1.1	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
Benzo(a)anthracene		< 1.1	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1
Chrysene		< 1.1	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1
Bis(2-ethylhexyl)phthalate		< 5.3	< 5.6	< 5	< 5.4	2.6	< 5	< 5	23	< 5.3	< 5.1	< 5	< 5	< 5.1
Di-n-octylphthalate		< 5.3	< 5.6	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1
Benzo(b)fluoranthene		< 1.1	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1
Benzo(k)fluoranthene		< 1.1	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1
Benzo(a)pyrene		< 1.1	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1
Dibenzo(a,h)anthracene		< 1.1	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1
Indeno(1,2,3-cd)pyrene		< 1.1	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1
Benzo(g,h,i)perylene		< 1.1	< 0.67	< 5	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1
2,3,4,6-Tetrachlorophenol		8	< 5.6	< 5	< 5.4	< 5.6	< 5	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1

NOTES:
Detection
Detection > ICL

Table J-2
Groundwater SVOCs Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)							Area B					
Site ID	Interim	ME-11d	ME-11d	ME-11d	ME-11s	ME-11s	ME-11s	ME-11s	ME-04a	ME-04a	ME-04a	ME-04a	ME-04b	ME-04b
Sample ID	Cleanup	ME-11D-0906	ME-11D-1006	ME-11D-1106	ME-11S-0806	ME-11S-0906	ME-11S-1006	ME-11S-1106	ME-4A-0806	ME-4A-0906	ME-04A-1006	ME-04A-1106	ME-4B-0806	ME-4B-0906
Sample Date	Level	06/22/09	06/21/10	06/16/11	06/17/08	06/22/09	06/21/10	06/16/11	06/16/08	06/22/09	06/21/10	06/14/11	06/16/08	06/23/09
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Benzaldehyde		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	26	< 5	< 5	< 5.1	< 5.6
Phenol		0.96	< 5	< 5	< 5.1	< 5.3	< 5	< 5	2.6	< 5.1	< 5	< 5	< 5.1	< 5.6
2-Chlorophenol		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	2.2	< 5	< 5.1	< 5.6
2-Methylphenol		6.3	3.2	< 5	< 5.1	< 5.3	< 5	< 5	3.1	< 5.1	1.9	< 5	< 5.1	< 5.6
Acetophenone		< 5.4	38	5.3	< 5.1	< 5.3	< 5	< 5	< 5.3	42	< 5	4.3	< 5.1	< 5.6
4-Methylphenol		< 5.4	3.7	< 5	< 5.1	< 5.3	< 5	< 5	10	< 5.1	< 5	2.4	< 5.1	< 5.6
2,4-Dimethylphenol		2.5	15	< 5	< 5.1	< 5.3	< 5	< 5	9.4	< 5.1	6.7	3.8	< 5.1	< 5.6
2,4-Dichlorophenol		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1	< 5.6
Naphthalene	20	0.2	9.8	< 5	0.06	< 0.21	< 5	< 5	11	1.8	7.6	12	0.036	0.046
Hexachlorobutadiene	0.5	< 0.43	< 5	< 5	< 0.2	< .42	< 5	< 5	< 0.21	0.2	< 5	< 5	< 0.2	< 0.22
4-Chloro-3-methylphenol		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1	< 5.6
2-Methylnaphthalene		< 0.22	10	< 5	< 0.1	< 0.21	< 5	< 5	5.4	1.8	5.4	5.7	< 0.1	< 0.11
2,4,6-Trichlorophenol		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1	< 5.6
2,4,5-Trichlorophenol		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	3	< 5	< 5.1	< 5.6
1,1'-Biphenyl		9.2	7.4	4.8	1.8	2.9	1.7	< 5	6.9	16	22	15	< 5.1	< 5.6
Acenaphthylene		< 0.22	< 5	< 5	< 0.1	< 0.21	< 5	< 5	0.41	< 0.21	< 5	< 5	< 0.1	< 0.11
Acenaphthene		0.42	< 5	< 5	0.12	0.16	< 5	< 5	0.24	< 0.21	< 5	< 5	< 0.1	< 0.11
Dibenzofuran		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1	< 5.6
Diethylphthalate		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	< 5	< 5	1.4	< 5.6
Fluorene		0.51	< 5	< 5	0.066	0.11	< 5	< 5	0.12	.11	< 5	< 5	< 0.1	< 0.11
N-Nitrosodiphenylamine		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1	< 5.6
Pentachlorophenol		< 0.43	< 10	< 10	< 0.21	< .42	< 10	< 10	3.8	0.5	9.1	< 10	< 0.21	< 0.22
Phenanthrene		0.55	< 5	< 5	< 0.1	0.048	< 5	< 5	0.075	0.17	< 5	< 5	< 0.1	< 0.11
Anthracene		0.083	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	0.039	< 5	< 5	< 0.1	< 0.11
Di-n-butylphthalate		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1	< 5.6
Fluoranthene		0.034	< 5	< 5	< 0.1	< 0.21	< 5	< 5	0.02	0.12	< 5	< 5	< 0.1	< 0.11
Pyrene		< 0.22	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	0.083	< 5	< 5	< 0.1	< 0.11
Butylbenzylphthalate		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1	< 5.6
Benzo(a)anthracene		0.034	< 5	< 5	< 0.1	< 0.21	< 5	< 5	0.044	0.19	< 5	< 5	< 0.1	< 0.11
Chrysene		< 0.22	< 5	< 5	< 0.1	< 0.21	< 5	< 5	0.05	0.15	< 5	< 5	< 0.1	< 0.11
Bis(2-ethylhexyl)phthalate		< 5.4	1.8	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	3.7	1.6	< 5	< 5.1	< 5.6
Di-n-octylphthalate		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1	< 5.6
Benzo(b)fluoranthene		< 0.22	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	0.18	< 5	< 5	< 0.1	< 0.11
Benzo(k)fluoranthene		< 0.22	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	0.14	< 5	< 5	< 0.1	< 0.11
Benzo(a)pyrene		< 0.22	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	0.15	< 5	< 5	< 0.1	< 0.11
Dibenzo(a,h)anthracene		< 0.22	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	0.15	< 5	< 5	< 0.1	< 0.11
Indeno(1,2,3-cd)pyrene		< 0.22	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	0.15	< 5	< 5	< 0.1	< 0.11
Benzo(g,h,i)perylene		< 0.22	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	0.13	< 5	< 5	< 0.1	< 0.11
2,3,4,6-Tetrachlorophenol		< 5.4	< 5	< 5	< 5.1	< 5.3	< 5	< 5	< 5.3	< 5.1	< 5	< 5	< 5.1	< 5.6

NOTES:
Detection
Detection > ICL

Table J-2
Groundwater SVOCs Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B (continued)												
Site ID	Interim	ME-04b	ME-04b	MEOW-3	MEOW-3	MEOW-3	MEOW-3	MEOW-3	MEOW-4	MEOW-4	MEOW-4	MEOW-4	MEOW-6	MEOW-6
Sample ID	Cleanup	ME-04B-1006	ME-04B-1106	MEOW-3-0806	MEOW-3-RS-0806	MEOW-3-0906	MEOW-3-1006	MEOW-3-1106	MEOW-4-0806	MEOW-4-0906	MEOW-4-1006	MEOW-4-1106	MEOW-6-0806	MEOW-6-0906
Sample Date	Level	06/21/10	06/14/11	06/16/08	06/16/08	06/22/09	06/21/10	06/14/11	06/16/08	06/23/09	06/22/10	06/14/11	06/18/08	06/25/09
					field duplicate									
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Benzaldehyde		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
Phenol		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	4.9	< 5	< 5	< 5.6	< 5.1
2-Chlorophenol		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
2-Methylphenol		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
Acetophenone		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
4-Methylphenol		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	3.4	< 5	< 5	< 5.6	< 5.1
2,4-Dimethylphenol		< 5	< 5	2.4	2.2	< 5.6	< 5	< 5	< 5.3	2.2	2.1	< 5	2.2	4.1
2,4-Dichlorophenol		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
Naphthalene	20	< 5	< 5	10	8.9	1.4	< 5	< 5	21	25	21	12	4.2	1.1
Hexachlorobutadiene	0.5	< 5	< 5	< 0.21	< 0.21	< .44	< 5	< 5	< 0.21	< 3.1	< 5	< 5	< 0.22	< .41
4-Chloro-3-methylphenol		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
2-Methylnaphthalene		< 5	< 5	9	7.8	1.6	< 5	< 5	16	12	15	13	3.3	< 0.21
2,4,6-Trichlorophenol		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
2,4,5-Trichlorophenol		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
1,1'-Biphenyl		< 5	< 5	12	11	9.7	10	7.1	17	20	15	14	3.2	3.9
Acenaphthylene		< 5	< 5	< 0.11	< 0.11	< 0.22	< 5	< 5	0.15	< 1.6	< 5	< 5	< 0.11	< 0.21
Acenaphthene		< 5	< 5	0.061	0.074	< 0.22	< 5	< 5	0.42	0.57	< 5	< 5	0.78	0.25
Dibenzofuran		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
Diethylphthalate		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
Fluorene		< 5	< 5	0.041	0.049	< 0.22	< 5	< 5	0.87	0.88	< 5	< 5	0.76	0.29
N-Nitrosodiphenylamine		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	5.8	< 5	2.3	< 5.6	< 5.1
Pentachlorophenol		< 10	< 10	< 0.21	< 0.21	< .44	< 10	< 10	4.1	< 3.1	3	< 10	< 0.22	< .41
Phenanthrene		< 5	< 5	< 0.11	< 0.11	0.09	< 5	< 5	0.63	0.88	< 5	< 5	< 0.11	< 0.21
Anthracene		< 5	< 5	< 0.11	< 0.11	< 0.22	< 5	< 5	0.096	< 1.6	< 5	< 5	< 0.11	< 0.21
Di-n-butylphthalate		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
Fluoranthene		< 5	< 5	< 0.11	< 0.11	< 0.22	< 5	< 5	< 0.11	< 1.6	< 5	< 5	< 0.11	< 0.21
Pyrene		< 5	< 5	< 0.11	< 0.11	< 0.22	< 5	< 5	< 0.11	< 1.6	< 5	< 5	< 0.11	< 0.21
Butylbenzylphthalate		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
Benzo(a)anthracene		< 5	< 5	< 0.11	< 0.11	< 0.22	< 5	< 5	< 0.11	< 1.6	< 5	< 5	< 0.11	< 0.21
Chrysene		< 5	< 5	< 0.11	< 0.11	< 0.22	< 5	< 5	< 0.11	< 1.6	< 5	< 5	< 0.11	< 0.21
Bis(2-ethylhexyl)phthalate		< 5	2.6	< 5.3	2.3	< 5.6	< 5	< 5	2.4	< 5.6	< 5	< 5	< 5.6	< 5.1
Di-n-octylphthalate		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1
Benzo(b)fluoranthene		< 5	< 5	< 0.11	0.036	< 0.22	< 5	< 5	< 0.11	< 1.6	< 5	< 5	< 0.11	< 0.21
Benzo(k)fluoranthene		< 5	< 5	< 0.11	0.028	< 0.22	< 5	< 5	< 0.11	< 1.6	< 5	< 5	< 0.11	< 0.21
Benzo(a)pyrene		< 5	< 5	< 0.11	0.033	< 0.22	< 5	< 5	< 0.11	< 1.6	< 5	< 5	< 0.11	< 0.21
Dibenzo(a,h)anthracene		< 5	< 5	< 0.11	0.035	< 0.22	< 5	< 5	< 0.11	< 1.6	< 5	< 5	< 0.11	< 0.21
Indeno(1,2,3-cd)pyrene		< 5	< 5	< 0.11	0.039	< 0.22	< 5	< 5	< 0.11	< 1.6	< 5	< 5	< 0.11	< 0.21
Benzo(g,h,i)perylene		< 5	< 5	< 0.11	0.035	< 0.22	< 5	< 5	< 0.11	< 1.6	< 5	< 5	< 0.11	< 0.21
2,3,4,6-Tetrachlorophenol		< 5	< 5	< 5.3	< 5.3	< 5.6	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5.6	< 5.1

NOTES:
Detection
Detection > ICL

Table J-2
Groundwater SVOCs Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B (continued)			Area C										
Site ID	Interim	MEOW-6	MEOW-6	MEOW-6	B-4a	B-4a	B-4a	B-4a	B-4b	B-4b	B-4b	B-4b	B-5a	B-5a	B-5a
Sample ID	Cleanup	MEOW-6-1006	1006	MEOW-6-1106	B4A-0806	B4A-0906	B-4A-1006	B-4A-1106	B4B-0806	B4B-0906	B-4B-1006	B-4B-1106	B5A-0806	B5A-0906	B-5A-1006
Sample Date	Level	06/24/10	06/24/10	06/14/11	06/18/08	06/23/09	06/22/10	06/16/11	06/18/08	06/23/09	06/22/10	06/16/11	06/17/08	06/29/09	06/25/10
			field duplicate												
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Benzaldehyde		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
Phenol		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
2-Chlorophenol		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
2-Methylphenol		3	2	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
Acetophenone		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
4-Methylphenol		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
2,4-Dimethylphenol		3.9	2.5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
2,4-Dichlorophenol		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
Naphthalene	20	< 5	< 5	< 5	0.034	0.077	< 5	< 5	0.038	< 0.22	< 5	< 5	.052	< 0.22	< 5
Hexachlorobutadiene	0.5	< 5	< 5	< 5	< 0.21	< 0.22	< 5	< 5	< 0.22	< 0.43	< 5	< 5	< 0.22	< 0.43	< 5
4-Chloro-3-methylphenol		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
2-Methylnaphthalene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.11	< 0.22	< 5
2,4,6-Trichlorophenol		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
2,4,5-Trichlorophenol		1	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
1,1'-Biphenyl		3.1	3.1	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
Acenaphthylene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.11	< 0.22	< 5
Acenaphthene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.11	< 0.22	< 5
Dibenzofuran		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
Diethylphthalate		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
Fluorene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.041	< 5	< 5	< 0.11	< 0.22	< 5
N-Nitrosodiphenylamine		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
Pentachlorophenol		< 10	< 10	< 10	< 0.21	< 0.22	< 10	< 10	< 0.22	0.43	< 10	< 10	< 0.22	< 0.43	< 10
Phenanthrene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.09	< 5	< 5	< 0.11	0.089	< 5
Anthracene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.071	< 5	< 5	< 0.11	< 0.22	< 5
Di-n-butylphthalate		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
Fluoranthene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.14	< 5	< 5	< 0.11	< 0.22	< 5
Pyrene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.16	< 5	< 5	< 0.11	< 0.22	< 5
Butylbenzylphthalate		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
Benzo(a)anthracene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.17	< 5	< 5	< 0.11	< 0.22	< 5
Chrysene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.19	< 5	< 5	< 0.11	< 0.22	< 5
Bis(2-ethylhexyl)phthalate		< 5	< 5	2.8	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
Di-n-octylphthalate		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5
Benzo(b)fluoranthene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.19	< 5	< 5	< 0.11	< 0.22	< 5
Benzo(k)fluoranthene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.22	< 5	< 5	< 0.11	< 0.22	< 5
Benzo(a)pyrene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.39	< 5	< 5	< 0.11	< 0.22	< 5
Dibenzo(a,h)anthracene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.18	< 5	< 5	< 0.11	< 0.22	< 5
Indeno(1,2,3-cd)pyrene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.17	< 5	< 5	< 0.11	< 0.22	< 5
Benzo(g,h,i)perylene		< 5	< 5	< 5	< 0.11	< 0.11	< 5	< 5	< 0.11	0.2	< 5	< 5	< 0.11	< 0.22	< 5
2,3,4,6-Tetrachlorophenol		< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5	< 5	< 5.6	< 5.4	< 5

NOTES:
Detection
Detection > ICL

Table J-2
Groundwater SVOCs Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)												
Site ID	Interim	MW-B1	MW-B1	MW-B1	MW-B1	GZ-09	GZ-09	GZ-09	GZ-09	ME-C01	ME-C01	ME-C01	ME-C01	ME-C02
Sample ID	Cleanup	MW-B1-0806	MW-B1-0906	MW-B1-1006	MW-B1-1106	GZ9-0806	GZ9-0906	GZ-09-1006	GZ-09-1106	ME-C01-0806	ME-C01-0906	ME-C01-1006	AE-GMZ-MEC01-1106	ME-C02-0806
Sample Date	Level	06/19/08	06/29/09	06/24/10	06/15/11	06/19/08	06/30/09	06/24/10	06/17/11	06/17/08	06/29/09	06/24/10	6/8/2011	06/17/08
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Benzaldehyde		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
Phenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
2-Chlorophenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
2-Methylphenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
Acetophenone		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
4-Methylphenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
2,4-Dimethylphenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
2,4-Dichlorophenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
Naphthalene	20	< 0.1	< 0.22	< 5	< 5	0.034	< 0.21	< 5	< 5	0.045	< 0.22	< 5	< 5	0.052
Hexachlorobutadiene	0.5	< 0.2	< 0.43	< 5	< 5	< 0.22	< .41	< 5	< 5	< 0.2	< .44	< 5	< 5	< 0.22
4-Chloro-3-methylphenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
2-Methylnaphthalene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
2,4,6-Trichlorophenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
2,4,5-Trichlorophenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
1,1'-Biphenyl		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
Acenaphthylene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
Acenaphthene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
Dibenzofuran		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
Diethylphthalate		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
Fluorene		< 0.1	< 0.22	< 5	< 5	< 0.11	0.035	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
N-Nitrosodiphenylamine		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
Pentachlorophenol		< 0.2	< 0.43	< 10	< 10	< 0.22	< .41	< 10	< 10	< 0.2	< .44	< 10	< 10	< 0.22
Phenanthrene		< 0.1	0.082	< 5	< 5	< 0.11	0.1	< 5	< 5	< 0.1	0.085	< 5	< 5	0.029
Anthracene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.11	< 5	< 5	< 0.11
Di-n-butylphthalate		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
Fluoranthene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	0.052
Pyrene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	0.036
Butylbenzylphthalate		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
Benzo(a)anthracene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
Chrysene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
Bis(2-ethylhexyl)phthalate		< 5	< 5.4	< 5	< 5	5.4	< 5.1	< 5	2.1	< 5	< 5.6	< 5	< 5	< 5.6
Di-n-octylphthalate		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6
Benzo(b)fluoranthene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
Benzo(k)fluoranthene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
Benzo(a)pyrene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
Dibenzo(a,h)anthracene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
Indeno(1,2,3-cd)pyrene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
Benzo(g,h,i)perylene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.21	< 5	< 5	< 0.1	< 0.22	< 5	< 5	< 0.11
2,3,4,6-Tetrachlorophenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.1	< 5	< 5	< 5	< 5.6	< 5	< 5	< 5.6

NOTES:
Detection
Detection > ICL

Table J-2
Groundwater SVOCs Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)												
Site ID	Interim	ME-C02	ME-C02	ME-C02	ME-C04	ME-C04	ME-C04	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05s	ME-C05s	ME-C05s
Sample ID	Cleanup	ME-C02-0906	ME-C02-1006	ME-C02-1106	ME-C04-0906	ME-C04-1006	ME-C04-1106	ME-C05D-0806	ME-C05D-0906	ME-C05D-RS-0906	ME-C05D-1006	ME-C05S-0806	ME-C05S-RS-0806	ME-C05S-0906
Sample Date	Level	06/29/09	06/24/10	06/16/11	06/29/09	06/24/10	06/17/11	06/19/08	06/30/09	06/30/09	06/25/10	06/19/08	06/19/08	06/30/09
										field duplicate			field duplicate	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Benzaldehyde		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
Phenol		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
2-Chlorophenol		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
2-Methylphenol		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
Acetophenone		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
4-Methylphenol		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
2,4-Dimethylphenol		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
2,4-Dichlorophenol		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
Naphthalene	20	< 0.2	< 5	< 5	0.062	< 5	< 5	0.04	< 0.22	< 0.22	< 5	0.044	0.031	< 0.22
Hexachlorobutadiene	0.5	< .4	< 5	< 5	< .41	< 5	< 5	< 0.21	< .44	< .44	< 5	< 0.21	< 0.2	< 0.43
4-Chloro-3-methylphenol		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
2-Methylnaphthalene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	< 0.22
2,4,6-Trichlorophenol		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
2,4,5-Trichlorophenol		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
1,1'-Biphenyl		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
Acenaphthylene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	< 0.22
Acenaphthene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.051
Dibenzofuran		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
Diethylphthalate		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
Fluorene		< 0.2	< 5	< 5	0.039	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.14
N-Nitrosodiphenylamine		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
Pentachlorophenol		< .4	< 10	< 10	< .41	< 10	< 10	< 0.21	< .44	< .44	< 10	< 0.21	< 0.2	< 0.43
Phenanthrene		0.079	< 5	< 5	0.096	< 5	< 5	< 0.11	0.093	0.093	< 5	< 0.1	< 0.1	0.28
Anthracene		< .4	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.23
Di-n-butylphthalate		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
Fluoranthene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	0.015	0.27
Pyrene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.28
Butylbenzylphthalate		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
Benzo(a)anthracene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.26
Chrysene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.27
Bis(2-ethylhexyl)phthalate		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	4.1	26	4
Di-n-octylphthalate		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4
Benzo(b)fluoranthene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.16
Benzo(k)fluoranthene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.19
Benzo(a)pyrene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.23
Dibenzo(a,h)anthracene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.16
Indeno(1,2,3-cd)pyrene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.16
Benzo(g,h,i)perylene		< 0.2	< 5	< 5	< 0.21	< 5	< 5	< 0.11	< 0.22	< 0.22	< 5	< 0.1	< 0.1	0.18
2,3,4,6-Tetrachlorophenol		< 5	< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5.6	< 5	< 5.1	< 5	< 5.4

NOTES:
Detection
Detection > ICL

Table J-2
Groundwater SVOCs Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)												
Site ID	Interim	ME-C05s	ME-C06	ME-C06	ME-C06	ME-C06	ME-C08d	ME-C08d	ME-C08d	ME-C08d	ME-C08s	ME-C08s	ME-C08s	ME-C08s
Sample ID	Cleanup	ME-C05S-1006	ME-C06-0806	ME-C06-0906	ME-C06-1006	ME-C06-1106	ME-C08D-0806	ME-C08D-0906	ME-C08D-1006	ME-C08D-1106	ME-C08S-0806	ME-C08S-0906	ME-C08S-1006	ME-C08S-1106
Sample Date	Level	06/25/10	06/17/08	06/30/09	06/24/10	06/17/11	06/17/08	06/29/09	06/22/10	06/16/11	06/17/08	06/29/09	06/22/10	06/16/11
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Benzaldehyde		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
Phenol		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
2-Chlorophenol		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
2-Methylphenol		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
Acetophenone		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
4-Methylphenol		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
2,4-Dimethylphenol		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
2,4-Dichlorophenol		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
Naphthalene	20	< 5	0.045	0.062	< 5	< 5	0.045	< 0.22	< 5	< 5	.046	< 0.22	< 5	< 5
Hexachlorobutadiene	0.5	< 5	< 0.2	< .41	< 5	< 5	< 0.21	< .44	< 5	< 5	< 0.2	< .44	< 5	< 5
4-Chloro-3-methylphenol		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
2-Methylnaphthalene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
2,4,6-Trichlorophenol		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
2,4,5-Trichlorophenol		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
1,1'-Biphenyl		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
Acenaphthylene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Acenaphthene		< 5	0.023	0.052	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Dibenzofuran		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
Diethylphthalate		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
Fluorene		< 5	< 0.1	0.083	< 5	< 5	< 0.11	0.042	< 5	< 5	< 0.1	0.041	< 5	< 5
N-Nitrosodiphenylamine		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
Pentachlorophenol		< 10	0.39	< .41	< 10	< 10	< 0.21	< .44	< 10	< 10	0.3	< .44	< 10	< 10
Phenanthrene		< 5	< 0.1	0.1	< 5	< 5	< 0.11	0.087	< 5	< 5	< 0.1	0.08	< 5	< 5
Anthracene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Di-n-butylphthalate		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
Fluoranthene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Pyrene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Butylbenzylphthalate		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
Benzo(a)anthracene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Chrysene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Bis(2-ethylhexyl)phthalate		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	2.3	< 5	< 5.6	< 5	< 5
Di-n-octylphthalate		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5
Benzo(b)fluoranthene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Benzo(k)fluoranthene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Benzo(a)pyrene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Dibenzo(a,h)anthracene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Indeno(1,2,3-cd)pyrene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
Benzo(g,h,i)perylene		< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5	< 0.1	< 0.22	< 5	< 5
2,3,4,6-Tetrachlorophenol		< 5	< 5	< 5.1	< 5	< 5	< 5.3	< 5.6	< 5	< 5	< 5	< 5.6	< 5	< 5

NOTES:
Detection
Detection > ICL

Table J-2
Groundwater SVOCs Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)				East of Route 125									
Site ID	Interim	ME-C09d	ME-C09d	ME-C09d	ME-C09d	GZ-04a	GZ-04a	GZ-04a	GZ-04a	GZ-04a	GZ-04a	GZ-04b	GZ-04b	GZ-04b	GZ-04b
Sample ID	Cleanup	ME-C09D-0806	ME-C09D-0906	ME-C09D-1006	AE-GMZ-MEC09d-1106	GZ4A-0806	GZ4A-0906	GZ4A-RS-0906	GZ-04A-1006	GZ-04A-1106	GZ-04A-RS-1106	GZ4B-0806	GZ4B-0906	GZ-04B-1006	GZ-04B-1106
Sample Date	Level	06/19/08	06/30/09	06/22/10	6/6/2011	06/18/08	06/24/09	06/24/09	06/23/10	06/15/11	06/15/11	06/18/08	06/24/09	06/23/10	06/15/11
								field duplicate			field duplicate				
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Benzaldehyde		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5
Phenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	< 5	< 5	< 5	< 5.3	2.1	< 5	< 5
2-Chlorophenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	1	< 5	< 5	< 5.3	< 5.4	< 5	< 5
2-Methylphenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	< 5	< 5	< 5	3.5	3.6	< 5	< 5
Acetophenone		< 5	< 5.4	< 5	< 5	< 5.6	6.7	5.9	< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5
4-Methylphenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	1.3	< 5	< 5	< 5.3	< 5.4	< 5	< 5
2,4-Dimethylphenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	1.5	< 5	< 5	84	63	< 5	< 5
2,4-Dichlorophenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5
Naphthalene	20	0.042	< 0.22	< 5	< 5	0.67	0.46	0.36	1.1	< 5	< 5	8.9	8	3.6	< 5
Hexachlorobutadiene	0.5	< 0.2	< 0.43	< 5	< 5	< 0.22	< 0.22	< 0.22	< 5	< 5	< 5	< 0.21	< 0.43	< 5	< 5
4-Chloro-3-methylphenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	1.6	< 5	< 5	< 5.3	< 5.4	< 5	< 5
2-Methylnaphthalene		< 0.1	< 0.22	< 5	< 5	0.42	0.12	0.1	< 5	< 5	< 5	5.2	5.5	1.1	< 5
2,4,6-Trichlorophenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5
2,4,5-Trichlorophenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5
1,1'-Biphenyl		< 5	< 5.4	< 5	< 5	1.6	< 5.6	2.4	2.8	< 5	< 5	1.7	2.1	< 5	< 5
Acenaphthylene		< 0.1	< 0.22	< 5	< 5	0.032	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Acenaphthene		< 0.1	< 0.22	< 5	< 5	0.12	0.21	0.16	< 5	< 5	< 5	0.16	0.25	< 5	< 5
Dibenzofuran		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	1.1	< 5	< 5	< 5.3	< 5.4	< 5	< 5
Diethylphthalate		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	1.2	< 5	< 5	< 5.3	< 5.4	< 5	< 5
Fluorene		< 0.1	< 0.22	< 5	< 5	0.15	0.31	0.24	1.1	< 5	< 5	0.049	0.19	< 5	< 5
N-Nitrosodiphenylamine		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	1.1	< 5	< 5	< 5.3	< 5.4	< 5	< 5
Pentachlorophenol		< 0.2	< 0.43	< 10	< 10	< 0.22	1.3	0.47	< 10	< 10	< 10	< .63	0.58	< 10	< 10
Phenanthrene		< 0.1	0.094	< 5	< 5	< 0.11	0.021	0.02	< 5	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Anthracene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Di-n-butylphthalate		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	1.1	< 5	< 5	< 5.3	< 5.4	< 5	< 5
Fluoranthene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Pyrene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.11	< 0.11	1	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Butylbenzylphthalate		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	1.2	< 5	< 5	< 5.3	< 5.4	< 5	< 5
Benzo(a)anthracene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.11	< 0.11	1	< 5	< 5	< 0.11	0.035	< 5	< 5
Chrysene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.11	< 0.11	1.1	< 5	< 5	< 0.11	0.034	< 5	< 5
Bis(2-ethylhexyl)phthalate		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	1.3	< 5	4.4	< 5.3	< 5.4	1.1	3.9
Di-n-octylphthalate		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	1.1	< 5	< 5	< 5.3	< 5.4	< 5	< 5
Benzo(b)fluoranthene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.11	< 0.11	1.1	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Benzo(k)fluoranthene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Benzo(a)pyrene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	0.034	< 5	< 5
Dibenzo(a,h)anthracene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Indeno(1,2,3-cd)pyrene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Benzo(g,h,i)perylene		< 0.1	< 0.22	< 5	< 5	< 0.11	< 0.11	< 0.11	< 5	< 5	< 5	< 0.11	< 0.22	< 5	< 5
2,3,4,6-Tetrachlorophenol		< 5	< 5.4	< 5	< 5	< 5.6	< 5.6	< 5.6	< 5	< 5	< 5	< 5.3	< 5.4	< 5	< 5

NOTES:
Detection
Detection > ICL

Table J-2
Groundwater SVOCs Performance Monitoring Results (Detections 2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		East of Route 125 (continued)											
Site ID	Interim	MEOW-1	MEOW-1	MEOW-1	MEOW-1	MEOW-2	MEOW-2	MEOW-2	MEOW-2	W-20	W-20	W-20	W-20
Sample ID	Cleanup	MEOW-1-0806	MEOW-1-0906	MEOW-1-1006	MEOW-1-1106	MEOW-2-0806	MEOW-2-0906	MEOW-2-1006	MEOW-2-1106	W20-0806	W20-0906	W-20-1006	W-20-1106
Sample Date	Level	06/18/08	06/24/09	06/23/10	06/15/11	06/18/08	06/24/09	06/23/10	06/15/11	06/18/08	06/25/09	06/23/10	06/15/11
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Benzaldehyde		< 5.6	< 5.3	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
Phenol		49	34	78	39	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
2-Chlorophenol		< 5.6	< 5.3	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
2-Methylphenol		15	9.9	25	8.2	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
Acetophenone		< 5.6	< 5.3	< 5	20	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	4.4
4-Methylphenol		22	15	37	19	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
2,4-Dimethylphenol		13	9.4	26	10	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
2,4-Dichlorophenol		< 5.6	< 5.3	2.9	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
Naphthalene	20	40	30	21	11	0.056	< 0.21	< 5	< 5	11	1.7	< 5	< 5
Hexachlorobutadiene	0.5	< 0.22	< 0.21	< 5	< 5	< 0.2	< .42	< 5	< 5	< 0.22	< 0.43	< 5	< 5
4-Chloro-3-methylphenol		< 5.6	< 5.3	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
2-Methylnaphthalene		25	16	8	2.6	< 0.1	< 0.21	< 5	< 5	13	< 0.22	< 5	< 5
2,4,6-Trichlorophenol		< 5.6	4.7	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
2,4,5-Trichlorophenol		8.9	1.9	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
1,1'-Biphenyl		23	15	10	5.2	< 5	< 5.3	< 5	< 5	6.8	7.3	5.8	2
Acenaphthylene		< 0.11	< 0.11	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Acenaphthene		0.4	0.23	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	0.52	< 5	< 5
Dibenzofuran		< 5.6	< 5.3	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
Diethylphthalate		< 5.6	< 5.3	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
Fluorene		0.5	0.34	< 5	< 5	< 0.1	0.032	< 5	< 5	< 0.11	0.67	< 5	< 5
N-Nitrosodiphenylamine		< 5.6	< 5.3	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
Pentachlorophenol		77	53	67	3.3	< 0.2	< .42	< 10	< 10	< 2.2	< 0.43	< 10	< 10
Phenanthrene		< 0.11	0.022	< 5	< 5	< 0.1	0.086	< 5	< 5	0.77	0.93	< 5	< 5
Anthracene		< 0.11	< 0.11	< 5	< 5	0.047	< 0.21	< 5	< 5	0.076	< 0.22	< 5	< 5
Di-n-butylphthalate		< 5.6	< 5.3	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
Fluoranthene		< 0.11	< 0.11	< 5	< 5	< 0.1	< 0.21	< 5	< 5	0.031	< 0.22	< 5	< 5
Pyrene		< 2.2	< 0.11	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Butylbenzylphthalate		< 5.6	< 5.3	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
Benzo(a)anthracene		< 2.2	< 0.11	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Chrysene		< 2.2	< 0.11	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Bis(2-ethylhexyl)phthalate		< 5.6	< 5.3	< 5	7.4	< 5	< 5.3	< 5	3.6	< 5.4	< 5.4	< 5	4.3
Di-n-octylphthalate		< 5.6	< 5.3	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5
Benzo(b)fluoranthene		< 2.2	< 0.11	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Benzo(k)fluoranthene		< 2.2	< 0.11	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Benzo(a)pyrene		< 2.2	< 0.11	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Dibenzo(a,h)anthracene		< 2.2	< 0.11	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Indeno(1,2,3-cd)pyrene		< 2.2	< 0.11	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5
Benzo(g,h,i)perylene		< 2.2	< 0.11	< 5	< 5	< 0.1	< 0.21	< 5	< 5	< 0.11	< 0.22	< 5	< 5
2,3,4,6-Tetrachlorophenol		< 5.6	< 5.3	5.3	2.2	< 5	< 5.3	< 5	< 5	< 5.4	< 5.4	< 5	< 5

NOTES:
Detection
Detection > ICL

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A											
Site ID	Interim	INJA-H15	INJA-I21	GZ-11a	GZ-11a	GZ-11a	GZ-11a	GZ-11a	GZ-11b	GZ-11b	GZ-11b	GZ-11b	GZ-11b
Sample ID	Cleanup	INJA-H15-1002	INJA-I21-1002	GZ11A-0806	GZ-11A-0901	GZ11A-0906	GZ-11A-1006	GZ-11A-1105	GZ11B-0806	GZ11B-0906	GZ-11B-1006	GZ-11B-RS-1006	GZ-11B-1106
Sample Date	Goal	02/16/10	02/17/10	06/19/08	01/15/09	06/23/09	06/22/10	05/25/11	06/19/08	06/23/09	06/22/10	06/22/10	06/17/11
												field duplicate	
									bedrock	bedrock	bedrock	bedrock	bedrock
Units		mg/L	mg/L		mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L
Sulfate		21000	39000		32000	21000	18000	6400		2300	21	20	70
Units													mg/L
Chloride													5.7
Units													
Alkalinity													
Total Metals													
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L
Aluminum		5260	113000		446000	217000	89100	10200		65300	73		137
Antimony		< 60	< 60	0.49	< 60	0.54	0.3	< 2	0.46	0.78	< 2		< 2
Arsenic	10	7.8	39.2	81.1	< 10	26.3	4.8	30.3	5.1	19.3	5.1		7
Barium		42.3	60.6	10.1	6.4	4.8	7.1	15	20.7	23	18.5		18.9
Beryllium		0.5	34.4	< 1	71.3	51.4	15.4	2.6	< 1	24.7	0.055		< 1
Cadmium		6.3	55.8	0.17	720	517	79.6	10	0.76	13.1	< 1		< 1
Calcium		174000	218000	8460	298000	184000	172000	43400	16200	33600	16900		18700
Chromium		73.7	36.9	0.36	112	70.6	62.9	4.5	3.5	79.5	0.67		1.4
Cobalt		58.8	1760	0.24	4590	1840	830	170	0.36	222	0.072		< 1
Copper		57.9	454	1.2	1090	521	182	< 25	4.8	207	0.97		< 25
Iron		77800	359000	140	1230000	583000	288000	257000	968	55100	583		760
Lead	15	8.3	39.1	0.19	104	0.49	0.11	< 1	22.5	56.6	0.8		8.3
Magnesium		39200	59700	1530	118000	49100	47100	11400	4460	18900	4580		4750
Manganese	300	21600	42600	7.4	941000	633000	302000	40000	66.5	2320	66		75.6
Mercury		0.14	0.53	< 0.2	< 0.2	< 0.2	0.042	0.35	< 0.2	< 0.2	< 0.2		< 0.2
Nickel	100	285	3500	8.9	3170	1550	817	317	1.5	391	0.45		0.91
Potassium		46800	70300	2540	4550	7280	9170	15500	3210	3830	3930		3940
Selenium		< 35	< 35	< 5	< 35	14.3	6	7.6	< 5	4.5	< 5		< 5
Silver		< 10	< 10	< 1	< 10	0.13	< 1	< 1	< 1	< 2	< 1		< 1
Sodium		9720000	15100000	127000	6340000	4890000	7880000	2330000	7510	577000	9100		8360
Thallium		3.4	< 25	< 1	< 25	2	2.3	< 1	< 1	0.14	< 1		< 1
Vanadium		1.6	< 50	< 5	80	13.4	3.9	1.4	0.86	2.5	< 5		< 1
Zinc		85.9	1960	< 2	7460	2160	606	201	24.6	559	2.8		20.7

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A											
Site ID	Interim	INJA-H15	INJA-I21	GZ-11a	GZ-11a	GZ-11a	GZ-11a	GZ-11a	GZ-11b	GZ-11b	GZ-11b	GZ-11b	GZ-11b
Sample ID	Cleanup	INJA-H15-1002	INJA-I21-1002	GZ11A-0806	GZ-11A-0901	GZ11A-0906	GZ-11A-1006	GZ-11A-1105	GZ11B-0806	GZ11B-0906	GZ-11B-1006	GZ-11B-RS-1006	GZ-11B-1106
Sample Date	Goal	02/16/10	02/17/10	06/19/08	01/15/09	06/23/09	06/22/10	05/25/11	06/19/08	06/23/09	06/22/10	06/22/10	06/17/11
												field duplicate	
									bedrock	bedrock	bedrock	bedrock	bedrock
Dissolved Metals													
Units	ug/L	ug/L	ug/L		ug/L					ug/L			
Aluminum		261	124000		395000					63700			
Antimony		< 60	< 60		< 60					0.24			
Arsenic	10	< 10	37.9		< 10					15.7			
Barium		16.9	40.5		< 200					24.4			
Beryllium		< 5	37.1		62					26.1			
Cadmium		2.8	61.1		620					15.3			
Calcium		169000	219000		271000					33500			
Chromium		12.3	25.4		104					78.6			
Cobalt		46.8	1830		4020					233			
Copper		48.3	523		968					197			
Iron		10600	277000		1070000					48200			
Lead	15	< 10	32.9		83.1					54.8			
Magnesium		37600	57700		104000					18800			
Manganese	300	22500	45600		851000					2380			
Mercury		0.1	0.28		< 0.2					< 0.2			
Nickel	100	264	3630		2810					389			
Potassium		48400	73300		5420					4310			
Selenium		< 35	< 35		< 35					6.4			
Silver		< 10	< 10		< 10					< 2			
Sodium		10600000	15700000		5640000					572000			
Thallium		9.9	< 25		< 25					0.17			
Vanadium		< 50	< 50		71.4					1.2			
Zinc		35.5	2280		6640					547			

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)											
Site ID	Interim	GZ-11b	ME-07	ME-07	ME-07	ME-07	ME-11d	ME-11d	ME-11d	ME-11d	ME-11d	ME-11s	ME-11s
Sample ID	Cleanup	GZ-11B-RS-1106	ME-7-0806	ME-7-0906	ME-07-1006	ME-07-1106	ME-11D-0806	ME-11D-0906	ME-11D-1006	ME-11D-RS-1006	ME-11D-1106	ME-11S-0806	ME-11S-0906
Sample Date	Goal	06/17/11	06/18/08	06/25/09	06/24/10	06/15/11	06/17/08	06/22/09	06/21/10	06/21/10	06/16/11	06/17/08	06/22/09
		field duplicate								field duplicate			
		bedrock											
Units		mg/L		mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L		mg/L
Sulfate		19		17	5.5	12		1600	11000	11000	1600		110
Units		mg/L		mg/L	mg/L	mg/L					mg/L		
Chloride		3.8		8	9.7	15					15		
Units				mg/L	mg/L	mg/L							
Alkalinity				37	36	41							
Total Metals													
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L
Aluminum		402		< 200	< 200	< 200		< 200	2010		< 200		66.8
Antimony		< 2	< 2	< 2	0.12	< 2	0.13	0.082	0.2		< 2	0.13	< 2
Arsenic	10	8.3	12.3	0.45	4.3	7	65.4	119	104		112	66.3	98.4
Barium		20.5	24.7	42.8	34.9	40.3	34.8	23.3	20.6		23.6	60.7	67.3
Beryllium		< 1	< 1	< 1	< 1	< 1	< 1	< 2	1		< 1	< 1	< 1
Cadmium		0.94	0.45	4.5	0.48	1.6	0.064	< 2	1.7		< 1	< 1	< 1
Calcium		18600	6790	14700	8290	14400	21700	59600	190000		34700	29600	38800
Chromium		2.8	0.46	< 2	1.1	1.2	0.64	1.5	2.8		1.4	0.44	0.69
Cobalt		< 1	1.1	1.8	1.1	1.1	2.7	82.8	367		40.2	10.1	15.5
Copper		19.3	0.31	1.1	0.64	< 25	0.35	5.1	4		< 25	0.3	1.6
Iron		1010	7310	1080	10300	9190	23400	267000	612000		81600	24300	45600
Lead	15	30.2	0.22	0.16	0.19	< 1	0.21	0.17	1.8		< 1	< 1	0.034
Magnesium		4740	1220	1690	1470	1860	4350	10300	45600		7430	4720	5230
Manganese	300	77.4	1640	742	1120	1650	2360	46900	101000		11600	4210	5240
Mercury		< 0.2	< 0.2	< 0.2	< 0.2	0.15	< 0.2	< 0.2	< 0.2		< 0.2	< 0.2	< 0.2
Nickel	100	0.88	2.9	10.2	1.7	3.8	9.1	26.7	228		65.7	7.9	10.1
Potassium		3890	1110	2720	1660	2980	3570	10700	29300		7500	3460	5610
Selenium		< 5	< 5	< 5	< 5	< 5	< 5	0.45	4		< 5	< 5	0.64
Silver		< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1		< 1	< 1	< 1
Sodium		8160	7040	8220	7350	9490	23300	383000	4530000		648000	16500	61000
Thallium		< 1	< 1	0.032	< 1	< 1	< 1	< 2	< 1		< 1	< 1	0.022
Vanadium		< 1	< 5	0.11	< 5	< 1	< 5	< 10	1.5		< 1	< 5	0.12
Zinc		62.4	17.9	140	19.1	38.5	2.5	21.5	117		3.8	1.5	4.9

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)											
Site ID	Interim	GZ-11b	ME-07	ME-07	ME-07	ME-07	ME-11d	ME-11d	ME-11d	ME-11d	ME-11d	ME-11s	ME-11s
Sample ID	Cleanup	GZ-11B-RS-1106	ME-7-0806	ME-7-0906	ME-07-1006	ME-07-1106	ME-11D-0806	ME-11D-0906	ME-11D-1006	ME-11D-RS-1006	ME-11D-1106	ME-11S-0806	ME-11S-0906
Sample Date	Goal	06/17/11	06/18/08	06/25/09	06/24/10	06/15/11	06/17/08	06/22/09	06/21/10	06/21/10	06/16/11	06/17/08	06/22/09
		field duplicate								field duplicate			
		bedrock											
Dissolved Metals													
Units	ug/L												
Aluminum													
Antimony													
Arsenic	10												
Barium													
Beryllium													
Cadmium													
Calcium													
Chromium													
Cobalt													
Copper													
Iron													
Lead	15												
Magnesium													
Manganese	300												
Mercury													
Nickel	100												
Potassium													
Selenium													
Silver													
Sodium													
Thallium													
Vanadium													
Zinc													

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)										
Site ID	Interim	ME-11s	ME-11s	ME-A01d	ME-A01d	ME-A01d	ME-A01s	ME-A01s	MEPM-A10	MEPM-A10	MEPM-A10	MEPM-A11
Sample ID	Cleanup	ME-11S-1006	ME-11S-1106	ME-AO1D-0901	ME-A01D-1105	ME-A01D-RS-1105	ME-AO1S-0901	ME-A01S-1105	MEPM-A10-0901	MEPM-A10-1002	MEPM-A10-1105	MEPM-A11-0901
Sample Date	Goal	06/21/10	06/16/11	01/12/09	05/26/11	05/26/11	01/12/09	05/26/11	01/13/09	02/17/10	05/26/11	01/13/09
						field duplicate						
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sulfate		210	92	2700	740	750	700	94	170	41	32	3000
Units			mg/L									
Chloride			15									
Units												
Alkalinity												
Total Metals												
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		< 200	< 200	19300	474	426	62.8	1140	1320	78.5	72.4	954
Antimony		< 2	< 2	< 60	< 2	< 2	< 60	0.81	< 60	< 60	< 2	7
Arsenic	10	87.4	82.2	26.3	114	116	54.7	47.9	82.5	48.1	55.3	81.8
Barium		93.6	116	24.6	12.2	11.6	25.3	13.4	28.3	26.3	24	53.6
Beryllium		0.06	< 1	0.12	< 1	< 1	< 5	< 1	0.33	< 5	< 1	< 5
Cadmium		< 1	< 1	7.4	< 1	< 1	1.5	1.7	< 5	< 5	< 1	5
Calcium		41500	39200	33100	< 5000	< 5000	40800	7540	19000	32600	24500	141000
Chromium		0.49	1.2	3.1	0.92	0.8	< 10	1.7	3.1	< 10	< 2	< 10
Cobalt		19.1	12.2	149	3	3	41.6	2.3	4.4	1.7	2.5	134
Copper		1.3	< 25	60.9	< 25	< 25	< 25	< 25	21.3	< 25	< 25	< 25
Iron		50500	43600	38500	883	729	137000	866	13100	8740	18600	546000
Lead	15	< 1	< 1	19.7	3.3	3.1	5.1	11.9	9.3	1.4	0.46	6.9
Magnesium		5870	6040	6700	< 5000	< 5000	6480	< 5000	3260	5710	4120	24100
Manganese	300	5830	5440	50000	50.7	50.3	18500	82.2	824	2900	4800	72200
Mercury		< 0.2	0.12	< 0.2	0.21	0.22	< 0.2	0.22	0.19	< 0.2	0.18	< 0.2
Nickel	100	14.3	11.3	415	45.9	46.8	5.2	21.3	17.8	5.2	5	55.6
Potassium		7520	6150	9510	4870	4750	9100	6830	3170	4110	4320	22000
Selenium		2.5	< 5	< 35	< 5	< 5	10.3	< 5	< 35	< 35	2.4	42.3
Silver		< 1	< 1	< 10	< 1	< 1	< 10	< 1	< 10	0.22	< 1	< 10
Sodium		99200	62400	1030000	525000	446000	225000	150000	103000	55600	58700	825000
Thallium		0.066	< 1	< 25	< 1	< 1	< 25	< 1	< 25	< 25	< 1	< 25
Vanadium		< 5	< 1	7.7	1.6	1.5	3.8	3.5	4.2	< 50	< 1	13.9
Zinc		2.7	< 2	259	2.7	2.7	7.3	8.3	12.6	< 60	3.4	94.1

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)										
Site ID	Interim	ME-11s	ME-11s	ME-A01d	ME-A01d	ME-A01d	ME-A01s	ME-A01s	MEPM-A10	MEPM-A10	MEPM-A10	MEPM-A11
Sample ID	Cleanup	ME-11S-1006	ME-11S-1106	ME-AO1D-0901	ME-A01D-1105	ME-A01D-RS-1105	ME-AO1S-0901	ME-A01S-1105	MEPM-A10-0901	MEPM-A10-1002	MEPM-A10-1105	MEPM-A11-0901
Sample Date	Goal	06/21/10	06/16/11	01/12/09	05/26/11	05/26/11	01/12/09	05/26/11	01/13/09	02/17/10	05/26/11	01/13/09
						field duplicate						
Dissolved Metals												
Units	ug/L			ug/L								
Aluminum				15800								
Antimony				< 60								
Arsenic	10			< 10								
Barium				16.9								
Beryllium				< 5								
Cadmium				7								
Calcium				32100								
Chromium				< 10								
Cobalt				154								
Copper				59.1								
Iron				3230								
Lead	15			14.2								
Magnesium				6800								
Manganese	300			52200								
Mercury				< 0.2								
Nickel	100			432								
Potassium				9300								
Selenium				< 35								
Silver				< 10								
Sodium				1080000								
Thallium				< 25								
Vanadium				7.4								
Zinc				257								

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)									
Site ID	Interim	MEPM-A11	MEPM-A11	MEPM-A11	MEPM-A12	MEPM-A12	MEPM-A13	MEPM-A13	MEPM-A14	MEPM-A14	MEPM-A14
Sample ID	Cleanup	MEPM-A11-1002	MEPM-A11-RS-1002	MEPM-A11-1105	MEPM-A12-0901	MEPM-A12-1105	MEPM-A13-0901	MEPM-A13-1105	MEPM-A14-0901	MEPM-A14-1002	MEPM-A14-1105
Sample Date	Goal	02/17/10	02/17/10	05/26/11	01/13/09	05/26/11	01/14/09	05/26/11	01/13/09	02/17/10	05/26/11
			field duplicate								
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sulfate		2100	2000	160	700	1400	56000	1100	13000	5600	920
Units											
Chloride											
Units											
Alkalinity											
Total Metals											
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		278	245	< 200	907	971	893000	67400	71500	216	245
Antimony		4.4	3	< 2	< 60	1.1	< 60	< 2	< 60	3.6	< 2
Arsenic	10	58	56.4	30.9	4.2	98.4	544	44.1	< 10	94.1	49
Barium		29.8	29.7	35.7	19.9	16.7	7	8.2	13.6	23.4	7.9
Beryllium		< 5	< 5	< 1	< 5	< 1	324	26.2	10.5	< 5	< 1
Cadmium		< 5	0.28	< 1	2.2	3.9	134	6.7	173	< 5	< 1
Calcium		14600	15200	7150	34000	39500	324000	67800	255000	132000	8140
Chromium		6.5	6.2	1.4	< 10	2.3	461	25.1	< 10	1.5	< 2
Cobalt		5.8	6.1	8.9	46.7	5.2	4480	618	1280	46.1	17.6
Copper		3.3	2.9	< 25	< 25	< 25	2740	220	117	< 25	< 25
Iron		25500	26500	8920	96300	63000	1290000	191000	354000	130000	12700
Lead	15	3	3.3	1.7	9.5	10.8	65.5	2.7	67	< 10	1.7
Magnesium		2250	2490	< 5000	6140	7440	166000	33400	54000	28200	2520
Manganese	300	4890	5200	2850	33300	14900	75000	9390	270000	31100	2120
Mercury		< 0.2	< 0.2	0.18	< 0.2	0.41	< 0.2	0.24	< 0.2	0.06	0.22
Nickel	100	22.3	24.6	41.6	64.8	9.8	4750	997	2400	62.3	110
Potassium		6680	7430	3130	7200	5490	2360	7840	50500	16700	3640
Selenium		< 35	< 35	< 5	6.9	< 5	< 35	3.6	< 35	16.9	< 5
Silver		< 10	< 10	< 1	< 10	< 1	< 10	< 1	< 10	< 10	< 1
Sodium		1150000	1170000	211000	245000	649000	9090000	3500000	4210000	2140000	295000
Thallium		3.6	2.6	< 1	< 25	< 1	< 25	0.91	< 25	< 25	< 1
Vanadium		1.9	1.1	1	5.6	5.4	66.6	6.3	25.7	< 50	1.2
Zinc		10.8	9.9	5	51.9	13.6	6040	674	2690	17.1	7.8

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)									
Site ID	Interim	MEPM-A11	MEPM-A11	MEPM-A11	MEPM-A12	MEPM-A12	MEPM-A13	MEPM-A13	MEPM-A14	MEPM-A14	MEPM-A14
Sample ID	Cleanup	MEPM-A11-1002	MEPM-A11-RS-1002	MEPM-A11-1105	MEPM-A12-0901	MEPM-A12-1105	MEPM-A13-0901	MEPM-A13-1105	MEPM-A14-0901	MEPM-A14-1002	MEPM-A14-1105
Sample Date	Goal	02/17/10	02/17/10	05/26/11	01/13/09	05/26/11	01/14/09	05/26/11	01/13/09	02/17/10	05/26/11
			field duplicate								
Dissolved Metals											
Units	ug/L						ug/L	ug/L	ug/L	ug/L	
Aluminum							894000	37000	70100	17.3	
Antimony							< 60	< 2	< 60	< 60	
Arsenic	10						548	10	< 10	37	
Barium							< 200	6	10.8	20.8	
Beryllium							366	14	10.7	< 5	
Cadmium							142	4.5	172	0.44	
Calcium							364000	57200	251000	137000	
Chromium							521	9.8	< 10	< 10	
Cobalt							4720	410	1260	44	
Copper							2840	149	119	< 25	
Iron							1350000	166000	317000	127000	
Lead	15						59.7	0.62	64.9	< 10	
Magnesium							186000	26800	51400	30300	
Manganese	300						74500	7610	273000	34000	
Mercury							< 0.2	0.23	< 0.2	0.03	
Nickel	100						5320	664	2360	67.7	
Potassium							7090	6750	48000	19300	
Selenium							< 35	2.9	< 35	< 35	
Silver							< 10	< 1	< 10	< 10	
Sodium							11000000	1880000	4310000	2220000	
Thallium							< 25	0.4	< 25	14.8	
Vanadium							81.3	0.93	23	< 50	
Zinc							6750	365	2660	17.2	

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)									
Site ID	Interim	MEPM-A15d	MEPM-A15d	MEPM-A15s	MEPM-A15s	MEPM-A15s	MEPM-A16	MEPM-A16	MEPM-A17	MEPM-A17	MEPM-A18
Sample ID	Cleanup	MEPM-A15D-0901	MEPM-A15D-1105	MEPM-A15S-0901	MEPM-A15S-1002	MEPM-A15S-1105	MEPM-A16-0901	MEPM-A16-1105	MEPM-A17-0901	MEPM-A17-1105	MEPM-A18-0901
Sample Date	Goal	01/14/09	05/25/11	01/14/09	02/17/10	05/25/11	01/15/09	05/25/11	01/15/09	05/26/11	01/15/09
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sulfate		40000	27000	23000	28000	3900	4400	2800	1600	920	15000
Units											
Chloride											
Units											
Alkalinity											
Total Metals											
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		696000	129000	139	81100	326	276	3030	16700	591	141000
Antimony		< 60	3.9	14.2	< 60	< 2	4.2	< 2	< 60	< 2	7.6
Arsenic	10	< 10	5420	43.4	205	29.1	38.1	117	38.1	91.8	< 10
Barium		11.5	< 10	41	53.9	14.1	20	4.8	31.2	14.2	4
Beryllium		228	< 1	< 5	27.8	< 1	< 5	< 1	0.4	< 1	48
Cadmium		306	< 1	22.8	58.1	4.6	2	< 1	13.5	< 1	20
Calcium		373000	1890	391000	260000	21800	163000	10800	56800	90400	212000
Chromium		64.3	822	< 10	52.4	9	< 10	10	< 10	< 2	34.7
Cobalt		4110	37.9	1120	1550	69.2	98.4	60.6	221	117	1490
Copper		672	8.3	< 25	219	29.1	< 25	9.7	13.6	< 25	266
Iron		1150000	2350	1220000	260000	3440	363000	5640	207000	363000	968000
Lead	15	54.2	9.1	< 10	62.1	8.7	< 10	4.8	12.1	0.84	18.4
Magnesium		163000	< 5000	130000	53200	5070	37400	2460	10900	22900	86400
Manganese	300	160000	194	133000	75500	1580	9060	732	52300	24600	37200
Mercury		< 0.2	0.81	< 0.2	< 0.2	0.24	< 0.2	0.2	< 0.2	0.26	< 0.2
Nickel	100	6170	156	964	4000	284	82.6	325	195	120	2320
Potassium		32100	61000	78600	86100	13000	21600	10400	7500	18800	6690
Selenium		21.2	80.6	68.9	< 35	12.3	11.2	24.8	< 35	5.7	19.5
Silver		< 10	< 1	< 10	< 10	< 1	< 10	< 1	< 10	< 1	< 10
Sodium		9090000	16400000	5690000	11800000	1600000	929000	982000	436000	3280000	10300000
Thallium		< 25	< 1	< 25	< 25	< 1	< 25	< 1	< 25	< 1	< 25
Vanadium		30.7	612	21.8	< 50	0.81	6.4	4.9	5.3	3.1	53.5
Zinc		9500	25.1	48.2	2260	47.9	40.9	22.2	361	45.4	2180

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)									
Site ID	Interim	MEPM-A15d	MEPM-A15d	MEPM-A15s	MEPM-A15s	MEPM-A15s	MEPM-A16	MEPM-A16	MEPM-A17	MEPM-A17	MEPM-A18
Sample ID	Cleanup	MEPM-A15D-0901	MEPM-A15D-1105	MEPM-A15S-0901	MEPM-A15S-1002	MEPM-A15S-1105	MEPM-A16-0901	MEPM-A16-1105	MEPM-A17-0901	MEPM-A17-1105	MEPM-A18-0901
Sample Date	Goal	01/14/09	05/25/11	01/14/09	02/17/10	05/25/11	01/15/09	05/25/11	01/15/09	05/26/11	01/15/09
Dissolved Metals											
Units	ug/L				ug/L				ug/L		
Aluminum					78800				4390		
Antimony					< 60				< 60		
Arsenic	10				82.4				39.8		
Barium					47				32.4		
Beryllium					25.9				< 5		
Cadmium					56.8				14.3		
Calcium					254000				60400		
Chromium					38.4				< 10		
Cobalt					1490				236		
Copper					221				13.2		
Iron					194000				220000		
Lead	15				56.1				12.1		
Magnesium					51500				11600		
Manganese	300				74000				60400		
Mercury					< 0.2				< 0.2		
Nickel	100				3860				208		
Potassium					90200				7730		
Selenium					< 35				< 35		
Silver					< 10				< 10		
Sodium					11000000				465000		
Thallium					11.4				< 25		
Vanadium					< 50				3.4		
Zinc					2320				377		

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)		Area B									
Site ID	Interim	MEPM-A18	MEPM-A18	MEB-S04	MEB-S04	MEB-T03	ME-04a	ME-04a	ME-04a	ME-04a	ME-04b	ME-04b	ME-04b
Sample ID	Cleanup	MEPM-A18-1002	MEPM-A18-1105	MEB-S04-1002	MEB-S04-1105	MEB-T03-1002	ME-4A-0806	ME-4A-0906	ME-04A-1006	ME-04A-1106	ME-4B-0806	ME-4B-0906	ME-04B-1006
Sample Date	Goal	02/16/10	05/25/11	02/16/10	05/24/11	02/16/10	06/16/08	06/22/09	06/21/10	06/14/11	06/16/08	06/23/09	06/21/10
											bedrock	bedrock	bedrock
Units		mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L		mg/L	mg/L
Sulfate		48000	45000	5800	3900	240		5100	2300	1500		270	2300
Units										mg/L			
Chloride										24			
Units													
Alkalinity													
Total Metals													
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		692000	122000	236	168	1360		82700	2430	14100		457	4440
Antimony		< 60	< 2	< 60	< 2	< 60	0.58	0.32	0.91	2.2	< 2	< 4	0.21
Arsenic	10	759	22.9	40.4	32	9.1	20.6	11.7	81.9	300	2.1	1.9	6.1
Barium		53.9	4.5	69.8	33.3	46.3	42.2	22.7	27.7	9.5	91.1	75.8	136
Beryllium		150	54.8	< 5	< 1	< 5	< 2	22.3	0.23	< 1	4.6	2.1	10.7
Cadmium		113	6.8	2.2	< 1	0.44	0.061	23.9	< 1	< 1	0.27	0.08	0.43
Calcium		401000	147000	154000	120000	24300	133000	211000	29700	43300	107000	62600	178000
Chromium		1110	124	3.1	4.2	11.8	2.2	69.9	56.2	8.1	1.4	0.7	5
Cobalt		4950	620	211	31	6	6.5	263	9.2	22.8	103	11.8	163
Copper		3210	606	< 25	< 25	< 25	1.9	159	54.1	16.5	2.6	5.2	6
Iron		1290000	161000	305000	91400	44700	267000	121000	50800	28400	168000	37800	387000
Lead	15	27.4	1.6	2.4	0.47	7.6	0.65	8.6	13.8	5.3	0.23	0.56	1
Magnesium		242000	58400	40000	34500	4050	114000	26400	5880	6320	57500	25800	112000
Manganese	300	47200	10300	19000	14700	2900	24200	30800	891	1730	5700	1810	13200
Mercury		< 0.2	0.26	< 0.2	0.17	< 0.2	0.027	< 0.2	1.6	0.61	< 0.2	< 0.2	< 0.2
Nickel	100	15300	2250	553	267	8.8	7.1	454	21.8	74.5	328	38.6	535
Potassium		138000	40300	37700	22900	6980	50200	28100	14200	9950	8690	5760	14600
Selenium		< 35	18.4	< 35	< 5	< 35	< 5	7.9	7.1	< 5	0.28	< 10	1.7
Silver		< 10	< 1	< 10	< 1	< 10	< 1	< 2	0.084	< 1	< 1	< 2	0.046
Sodium		19900000	21700000	2450000	2080000	138000	2510000	1550000	1470000	1010000	291000	73400	718000
Thallium		< 25	1.8	< 25	< 1	< 25	< 1	1.8	0.13	< 1	< 1	< 2	< 1
Vanadium		53.1	6.1	158	48.4	6.8	1.5	0.84	13.1	69.8	0.59	0.11	1.4
Zinc		9540	732	24.8	2.4	9	5	1070	9.3	19.9	282	30.7	393

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area A (continued)		Area B									
Site ID	Interim	MEPM-A18	MEPM-A18	MEB-S04	MEB-S04	MEB-T03	ME-04a	ME-04a	ME-04a	ME-04a	ME-04b	ME-04b	ME-04b
Sample ID	Cleanup	MEPM-A18-1002	MEPM-A18-1105	MEB-S04-1002	MEB-S04-1105	MEB-T03-1002	ME-4A-0806	ME-4A-0906	ME-04A-1006	ME-04A-1106	ME-4B-0806	ME-4B-0906	ME-04B-1006
Sample Date	Goal	02/16/10	05/25/11	02/16/10	05/24/11	02/16/10	06/16/08	06/22/09	06/21/10	06/14/11	06/16/08	06/23/09	06/21/10
											bedrock	bedrock	bedrock
Dissolved Metals													
Units	ug/L					ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum						121		83000	338	5590		30.4	1520
Antimony						< 60	0.59	0.078	0.71	2.3	< 2	< 2	< 2
Arsenic	10					6.8	21.1	5	36	213	1.1	0.47	1.4
Barium						34.3	37	26	13.5	< 10	108	81.6	63.9
Beryllium						< 5	< 1	22.4	0.057	< 1	3.1	0.32	3.7
Cadmium						< 5	< 1	24.7	< 1	< 1	0.33	0.11	0.32
Calcium						22300	134000	210000	27900	32200	119000	63900	166000
Chromium						5	1.5	65.8	26.4	2.8	1.1	< 2	2
Cobalt						4.4	2.4	219	9.9	6.4	140	16.2	149
Copper						< 25	1.5	123	11.2	< 25	1.7	1.3	1.6
Iron						40200	268000	98900	17800	2180	198000	30800	309000
Lead	15					< 10	0.1	6.9	0.4	< 1	0.075	0.074	< 1
Magnesium						3520	108000	27300	6150	5450	64900	27300	101000
Manganese	300					2920	22500	24400	827	360	6960	1840	11700
Mercury						< 0.2	< 0.2	< 0.2	0.2	0.48	< 0.2	< 0.2	< 0.2
Nickel	100					6.7	6.9	388	26.8	45.6	436	49.6	490
Potassium						6530	47800	30000	16700	8980	9790	6650	13900
Selenium						< 35	< 5	9.3	8.2	< 5	< 5	0.36	1.1
Silver						< 10	< 1	0.026	< 1	< 1	< 1	< 1	< 1
Sodium						132000	2370000	1570000	1850000	857000	361000	82900	662000
Thallium						3	< 1	1.8	< 1	< 1	< 1	< 1	< 1
Vanadium						4.7	1.7	< 5	5.8	22.2	0.56	< 5	0.34
Zinc						< 60	2.9	841	3.8	1.7	363	36	339

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B (continued)											
Site ID	Interim	ME-04b	ME-B01d	ME-B02d	ME-B02d	ME-B02d	ME-B02s	ME-B02s	ME-B02s	ME-B02s	MEOW-3	MEOW-3	MEOW-3
Sample ID	Cleanup	ME-04B-1106	ME-B01D-1002	ME-BO2D-0901	ME-B02D-1002	ME-B02D-1105	ME-BO2S-0901	ME-B02S-1002	ME-B02S-RS-1002	ME-B02S-1105	MEOW-3-0806	MEOW-3-RS-0806	MEOW-3-0901
Sample Date	Goal	06/14/11	02/16/10	01/14/09	02/16/10	05/25/11	01/14/09	02/15/10	02/15/10	05/24/11	06/16/08	06/16/08	01/15/09
									field duplicate			field duplicate	
		bedrock											
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L			mg/L
Sulfate		1500	5200	24000	7600	2600	9200	1900		1100			1300
Units		mg/L											
Chloride		37											
Units													
Alkalinity													
Total Metals													
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	ug/L
Aluminum		2100	8530	536000	52100	11800	220000	28500		10200			22500
Antimony		< 4	5.6	< 60	3.4	1	< 60	3.5		< 2	0.17	0.14	< 60
Arsenic	10	3.4	99	135	330	108	24.5	174		58.7	13.8	13.7	< 10
Barium		150	28.8	17.3	13.9	7.3	26.4	25.7		8	68	68.7	21.6
Beryllium		6	3.2	129	4.3	< 1	48.7	6.6		3.3	< 1	< 1	7.2
Cadmium		< 2	< 5	47.1	4.9	< 1	27.3	7		0.92	0.055	0.051	3.4
Calcium		82600	85000	273000	132000	48500	233000	54500		40700	21400	21000	110000
Chromium		3	11.9	249	93.4	10.7	106	56.4		11.7	1.1	1.1	6.5
Cobalt		78.2	260	1820	337	45.3	695	189		60.8	2.3	2.3	261
Copper		< 25	55.5	1460	42.2	< 25	530	51.6		< 25	0.38	0.33	44.2
Iron		161000	92900	648000	136000	61100	345000	96900		91600	14100	13900	214000
Lead	15	< 2	16.4	119	2.4	2.3	72.9	11.7		40.4	0.2	0.16	16
Magnesium		47100	35900	92500	58700	17700	53800	11700		6930	6730	6600	20800
Manganese	300	5670	8700	46400	9780	2630	44600	11700		3340	1500	1490	9830
Mercury		< 0.2	0.07	< 0.2	< 0.2	0.2	< 0.2	0.05		0.18	< 0.2	< 0.2	< 0.2
Nickel	100	233	843	3040	1160	168	1330	427		185	5.7	5.9	395
Potassium		8930	23800	19300	15800	14600	42400	12400		13300	8200	8170	8950
Selenium		< 5	39.8	< 35	7.3	4.9	< 35	< 35		< 5	1.8	1.7	7.8
Silver		< 2	< 10	< 10	< 10	< 1	< 10	< 10		< 1	0.071	0.067	< 10
Sodium		499000	2790000	6090000	3280000	1100000	3150000	798000		537000	171000	171000	575000
Thallium		< 2	4.4	< 25	< 25	< 1	< 25	3		< 1	< 1	< 1	< 25
Vanadium		8	25.2	37.6	108	58.6	21.3	22.9		11.4	1.1	1.1	10.2
Zinc		159	167	3470	970	71.8	2330	927		77	1.4	1.9	559

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B (continued)											
Site ID	Interim	ME-04b	ME-B01d	ME-B02d	ME-B02d	ME-B02d	ME-B02s	ME-B02s	ME-B02s	ME-B02s	MEOW-3	MEOW-3	MEOW-3
Sample ID	Cleanup	ME-04B-1106	ME-B01D-1002	ME-BO2D-0901	ME-B02D-1002	ME-B02D-1105	ME-BO2S-0901	ME-B02S-1002	ME-B02S-RS-1002	ME-B02S-1105	MEOW-3-0806	MEOW-3-RS-0806	MEOW-3-0901
Sample Date	Goal	06/14/11	02/16/10	01/14/09	02/16/10	05/25/11	01/14/09	02/15/10	02/15/10	05/24/11	06/16/08	06/16/08	01/15/09
									field duplicate			field duplicate	
		bedrock											
Dissolved Metals													
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
Aluminum		499	1560	386000	7540	4710	102000	4200	3150	114			
Antimony		< 4	2.5	< 60	< 60	1.1	< 60	< 60	< 60	< 2			
Arsenic	10	3.3	24.3	< 10	20.2	95.5	< 10	32.7	25.9	36.4			
Barium		112	16.4	13.5	7.4	< 10	29	11.3	11.5	7			
Beryllium		2.8	0.7	70.3	0.79	< 1	25.3	1.3	1.2	< 1			
Cadmium		< 2	< 5	21.3	2.7	< 1	21.2	0.59	0.43	< 1			
Calcium		77000	67800	233000	127000	42200	195000	57600	54300	41900			
Chromium		2.2	5	148	31.1	1.6	55.5	10.1	8.1	2.1			
Cobalt		85.2	136	965	315	16	347	202	191	67.3			
Copper		< 25	17.9	962	2.7	< 25	196	74.6	< 25	< 25			
Iron		137000	43700	372000	83900	6970	196000	67600	68700	88300			
Lead	15	< 2	5.7	114	< 10	0.43	38	< 10	< 10	1.3			
Magnesium		43300	28300	66900	58000	13500	37800	12100	12000	7350			
Manganese	300	5060	6290	36700	9850	405	40000	14400	12600	3520			
Mercury		0.17	< 0.2	< 0.2	< 0.2	0.2	< 0.2	0.03	< 0.2	0.26			
Nickel	100	257	439	2350	1050	74.1	673	416	396	200			
Potassium		8380	22400	21500	15900	15200	43700	13300	13300	13900			
Selenium		< 5	8.5	< 35	7.2	6.9	< 35	< 35	< 35	< 5			
Silver		< 2	< 10	< 10	< 10	< 1	< 10	< 10	< 10	< 1			
Sodium		470000	2500000	5350000	3110000	1510000	2350000	871000	838000	559000			
Thallium		< 2	2.8	< 25	3.1	< 1	< 25	6.4	6.5	< 1			
Vanadium		8.6	6.6	17.3	3.4	30.9	9.6	1.6	0.87	7.4			
Zinc		172	43.1	2750	811	10.8	1840	304	181	30.8			

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B (continued)											
Site ID	Interim	MEOW-3	MEOW-3	MEOW-3	MEOW-4	MEOW-4	MEOW-4	MEOW-4	MEOW-6	MEOW-6	MEOW-6	MEOW-6	MEOW-6
Sample ID	Cleanup	MEOW-3-0906	MEOW-3-1006	MEOW-3-1106	MEOW-4-0806	MEOW-4-0906	MEOW-4-1006	MEOW-4-1106	MEOW-6-0806	MEOW-6-0906	MEOW-6-1006	MEOW-6-RS-1006	MEOW-6-1106
Sample Date	Goal	06/22/09	06/21/10	06/14/11	06/16/08	06/23/09	06/22/10	06/14/11	06/18/08	06/25/09	06/24/10	06/24/10	06/14/11
												field duplicate	
Units		mg/L	mg/L	mg/L		mg/L	mg/L	mg/L		mg/L	mg/L		mg/L
Sulfate		260	40	21		4.7	13	2.3		2900	5400		5900
Units				mg/L				mg/L		mg/L	mg/L		mg/L
Chloride				3.6				8		18	27		18
Units										mg/L	mg/L		mg/L
Alkalinity										61	12		290
Total Metals													
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		349	493	3850		868	634	495		< 200	< 200	< 200	< 200
Antimony		0.1	0.18	< 2	0.9	0.61	0.71	< 2	0.088	< 4	0.18	0.14	< 4
Arsenic	10	17	16.7	28.3	50.4	51.6	51.3	41	52.5	79.9	88.8	87.3	98.6
Barium		52.6	78.9	154	36.7	44.8	33.6	45	28	54.7	45.8	35.9	28.2
Beryllium		0.14	0.17	0.88	0.19	0.33	0.23	< 1	< 1	< 2	0.048	0.045	< 2
Cadmium		0.37	0.14	0.8	0.13	0.18	0.072	< 1	0.037	< 2	< 1	< 1	< 2
Calcium		41400	16100	16600	11300	18200	10300	17000	16700	112000	93800	90500	65400
Chromium		1.7	2	19.4	3	3.7	3.4	3.1	0.22	< 4	0.69	0.65	< 4
Cobalt		7.6	2.9	3.1	2.2	1.3	1.1	0.95	0.93	31.8	64	64.1	151
Copper		3.5	1.7	23.6	14.4	17	16.5	< 25	0.2	10.6	1.4	14.7	< 25
Iron		39800	34300	15800	4590	5010	3790	5700	19600	304000	290000	286000	211000
Lead	15	3.3	3	137	11.1	10.8	10	4.4	< 1	< 2	< 1	0.042	< 2
Magnesium		5910	3540	2120	1680	2520	1120	1870	2810	21600	17500	16300	10500
Manganese	300	1470	835	489	138	247	154	321	2360	33900	23900	24500	14100
Mercury		< 0.2	< 0.2	< 0.2	0.029	< 0.2	0.019	< 0.2	< 0.2	< .4	< 0.2	< 0.2	0.086
Nickel	100	11.6	6.3	18.8	11.7	8.6	8.6	7.9	3.7	20.8	24.1	23.7	481
Potassium		8080	4270	5900	2670	3880	3770	4670	2430	19300	21700	20600	21100
Selenium		1.6	0.7	< 5	< 5	0.56	< 5	< 5	< 5	0.96	1.4	2.1	< 5
Silver		< 2	< 1	< 1	0.11	< 2	0.04	< 1	< 1	< 2	< 1	< 1	< 2
Sodium		122000	76800	282000	117000	117000	104000	99500	25100	640000	2200000	2430000	3140000
Thallium		0.032	< 1	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 1	< 1	< 2
Vanadium		0.41	0.93	50.1	8.7	11.4	12	8.1	< 5	0.057	1.7	1.6	3.3
Zinc		24.6	8.3	19.3	8	6.1	4.1	2.8	< 2	10.1	2.5	3.3	4.2

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B (continued)											
Site ID	Interim	MEOW-3	MEOW-3	MEOW-3	MEOW-4	MEOW-4	MEOW-4	MEOW-4	MEOW-6	MEOW-6	MEOW-6	MEOW-6	MEOW-6
Sample ID	Cleanup	MEOW-3-0906	MEOW-3-1006	MEOW-3-1106	MEOW-4-0806	MEOW-4-0906	MEOW-4-1006	MEOW-4-1106	MEOW-6-0806	MEOW-6-0906	MEOW-6-1006	MEOW-6-RS-1006	MEOW-6-1106
Sample Date	Goal	06/22/09	06/21/10	06/14/11	06/16/08	06/23/09	06/22/10	06/14/11	06/18/08	06/25/09	06/24/10	06/24/10	06/14/11
												field duplicate	
Dissolved Metals													
Units	ug/L			ug/L									
Aluminum				3190									
Antimony				< 2									
Arsenic	10			27.4									
Barium				136									
Beryllium				0.85									
Cadmium				0.41									
Calcium				15300									
Chromium				20.3									
Cobalt				2.9									
Copper				11.7									
Iron				13100									
Lead	15			77.9									
Magnesium				1870									
Manganese	300			398									
Mercury				0.74									
Nickel	100			18.5									
Potassium				5450									
Selenium				< 5									
Silver				< 1									
Sodium				248000									
Thallium				< 1									
Vanadium				48.7									
Zinc				14.6									

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B (continued)							Area C			
Site ID	Interim	MEPM-B10d	MEPM-B10d	MEPM-B10d	MEPM-B10s	MEPM-B10s	MEPM-B11	MEPM-B11	B-4a	B-4a	B-4a	B-4a
Sample ID	Cleanup	MEPM-B10D-0901	MEPM-B10D-1002	MEPM-B10D-1105	MEPM-B10S-0901	MEPM-B10S-1105	MEPM-B11-0901	MEPM-B11-1105	B4A-0806	B4A-0906	B-4A-1006	B-4A-1106
Sample Date	Goal	01/14/09	02/15/10	05/24/11	01/14/09	05/25/11	01/14/09	05/25/11	06/18/08	06/23/09	06/22/10	06/16/11
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L
Sulfate		30000	11000	4100	25000	1700	5900	45		41	370	1040
Units												mg/L
Chloride												9
Units												
Alkalinity												
Total Metals												
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		608000	98100	59200	390000	1860	244000	< 200		93.1	< 200	< 200
Antimony		< 60	< 60	1.5	< 60	0.87	< 60	< 2	< 2	< 2	< 2	< 2
Arsenic	10	96	344	1220	< 10	69.1	106	21.1	66.7	30.9	13.6	19.7
Barium		12.4	20.4	11.7	14.9	9.2	4	32.3	20.1	17.1	42.7	61.6
Beryllium		194	35.5	2.1	69.3	< 1	84.5	< 1	< 1	0.05	0.046	< 1
Cadmium		39.8	10.7	< 1	138	< 1	34.2	< 1	< 1	0.045	< 1	< 1
Calcium		250000	131000	43400	256000	16100	130000	7800	15100	15800	88700	209000
Chromium		442	113	13.5	129	12.2	152	< 2	0.85	0.23	0.27	< 2
Cobalt		2210	525	94.5	1090	36.2	1420	1.1	0.33	0.16	0.16	< 1
Copper		1140	207	< 25	468	24.1	833	< 25	0.41	1.6	0.74	< 25
Iron		497000	433000	370000	91100	21700	366000	41700	37300	10500	36200	83500
Lead	15	56.2	4.9	7.6	91.7	3.5	43.7	< 1	1.7	0.028	0.37	< 1
Magnesium		127000	72200	35200	69600	5270	52300	1760	5410	4910	24300	49800
Manganese	300	50500	12500	6420	171000	4810	33200	1300	906	384	1150	3050
Mercury		< 0.2	< 0.2	0.34	< 0.2	0.22	< 0.2	0.18	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	100	4550	1550	732	2750	96.4	1950	4.9	3.1	10.8	1.8	1.3
Potassium		29600	23600	17400	66200	6290	13000	7800	2830	2590	4940	8270
Selenium		< 35	46.7	7.2	< 35	< 5	< 35	< 5	< 5	0.17	< 5	< 5
Silver		< 10	< 10	< 1	< 10	< 1	< 10	< 1	< 1	< 1	< 1	< 1
Sodium		5920000	4310000	2340000	7220000	1060000	3200000	103000	42700	26300	47900	196000
Thallium		< 25	< 25	< 1	< 25	< 1	< 25	< 1	< 1	< 1	< 1	< 1
Vanadium		119	93.5	353	19.2	9.7	25.2	< 1	< 5	0.1	< 5	< 1
Zinc		5700	1180	74.7	7200	62.5	2780	2.8	6.8	9.5	2.1	2.1

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area B (continued)							Area C			
Site ID	Interim	MEPM-B10d	MEPM-B10d	MEPM-B10d	MEPM-B10s	MEPM-B10s	MEPM-B11	MEPM-B11	B-4a	B-4a	B-4a	B-4a
Sample ID	Cleanup	MEPM-B10D-0901	MEPM-B10D-1002	MEPM-B10D-1105	MEPM-B10S-0901	MEPM-B10S-1105	MEPM-B11-0901	MEPM-B11-1105	B4A-0806	B4A-0906	B-4A-1006	B-4A-1106
Sample Date	Goal	01/14/09	02/15/10	05/24/11	01/14/09	05/25/11	01/14/09	05/25/11	06/18/08	06/23/09	06/22/10	06/16/11
Dissolved Metals												
Units	ug/L		ug/L	ug/L		ug/L	ug/L					
Aluminum			108000	765		140	123000					
Antimony			< 60	1.9		< 2	< 60					
Arsenic	10		221	209		13.4	< 10					
Barium			18.3	< 10		4.5	3.3					
Beryllium			37.5	< 1		< 1	30.6					
Cadmium			3.9	< 1		< 1	10.6					
Calcium			135000	30300		15700	99500					
Chromium			101	< 2		1.3	61					
Cobalt			544	12.7		30.3	561					
Copper			174	< 25		25.3	341					
Iron			423000	3570		3420	145000					
Lead	15		5.4	1.9		0.56	50.5					
Magnesium			78400	28300		5020	26700					
Manganese	300		13800	374		4610	24000					
Mercury			< 0.2	0.28		0.28	< 0.2					
Nickel	100		1340	570		92	1260					
Potassium			31100	18600		6560	14800					
Selenium			< 35	9.8		3.8	< 35					
Silver			< 10	< 1		< 1	< 10					
Sodium			4510000	2560000		1120000	2210000					
Thallium			< 25	< 1		< 1	< 25					
Vanadium			61.2	45.9		0.78	10.6					
Zinc			1360	12.2		61.6	1830					

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)											
Site ID	Interim	B-4b	B-4b	B-4b	B-4b	B-5a	B-5a	B-5a	B-5a	B-5a	GZ-09	GZ-09	GZ-09
Sample ID	Cleanup	B4B-0806	B4B-0906	B-4B-1006	B-4B-1106	B5A-0806	B-5A-0901	B5A-0906	B-5A-1006	B-5A-1105	GZ9-0806	GZ9-0906	GZ-09-1006
Sample Date	Goal	06/18/08	06/23/09	06/22/10	06/16/11	06/17/08	01/13/09	06/29/09	06/25/10	05/23/11	06/19/08	06/30/09	06/24/10
		bedrock	bedrock	bedrock	bedrock								
Units			mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L		mg/L	mg/L
Sulfate			21	19	25		84	20	17	19		12	15
Units					mg/L								
Chloride					5.4								
Units													
Alkalinity													
Total Metals													
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum			45.3	39.9	< 200		27.4	< 200	247	< 200		< 200	< 200
Antimony		< 2	< 2	< 2	< 2	0.2	< 60	< 2	< 2	< 2	0.1	< 2	< 2
Arsenic	10	97.5	115	93.3	112	9.3	6.2	8.1	10.7	11.2	5.2	5.9	4.4
Barium		26.3	40.1	34.8	32.7	8.1	8.8	8	9.5	10	10.3	10.5	10.2
Beryllium		< 1	0.024	< 1	< 1	< 1	< 5	0.026	0.1	< 1	< 1	< 1	< 1
Cadmium		< 1	4.2	< 1	< 1	< 1	< 5	< 1	< 1	< 1	< 1	0.084	< 1
Calcium		17800	23900	20000	18400	14400	17200	16800	16300	16200	13300	17500	13100
Chromium		0.33	0.25	0.3	< 2	0.57	< 10	< 2	0.96	< 2	0.45	< 2	0.53
Cobalt		7.2	9.7	7.7	7.5	0.065	< 50	0.044	1.4	< 1	0.91	0.24	0.95
Copper		0.24	4	< 2	< 25	0.39	2.4	0.54	1.5	< 25	0.2	1.7	0.71
Iron		29100	34300	30300	28200	10800	13000	13200	16500	13900	4400	5330	3310
Lead	15	1.6	0.31	0.076	< 1	0.078	7.3	< 1	0.15	< 1	< 1	0.87	< 1
Magnesium		3650	3790	3590	3180	3580	4200	4030	4140	3810	3820	4710	3810
Manganese	300	5710	6280	5900	5130	453	620	443	582	542	277	324	248
Mercury		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.14	< 0.2	< 0.2	< 0.2
Nickel	100	3.3	7.8	2.8	2.7	0.86	< 40	0.69	4.4	0.54	0.44	0.72	0.43
Potassium		1330	1720	2060	2060	1750	2150	1460	2010	1810	2210	2150	2520
Selenium		< 5	0.16	< 5	< 5	< 5	< 35	0.15	< 5	< 5	< 5	0.18	< 5
Silver		< 1	< 1	< 1	< 1	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1
Sodium		8280	8160	10800	12400	9030	13000	9260	36900	10100	10100	9020	11500
Thallium		< 1	0.018	< 1	< 1	< 1	< 25	< 1	< 1	< 1	< 1	< 1	< 1
Vanadium		< 5	0.032	< 5	< 1	< 5	< 50	< 5	0.9	< 1	0.37	< 5	0.45
Zinc		2.4	22.9	2.4	1.8	2	6	1	12.6	2	1.1	0.9	1.5

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)											
Site ID	Interim	B-4b	B-4b	B-4b	B-4b	B-5a	B-5a	B-5a	B-5a	B-5a	GZ-09	GZ-09	GZ-09
Sample ID	Cleanup	B4B-0806	B4B-0906	B-4B-1006	B-4B-1106	B5A-0806	B-5A-0901	B5A-0906	B-5A-1006	B-5A-1105	GZ9-0806	GZ9-0906	GZ-09-1006
Sample Date	Goal	06/18/08	06/23/09	06/22/10	06/16/11	06/17/08	01/13/09	06/29/09	06/25/10	05/23/11	06/19/08	06/30/09	06/24/10
		bedrock	bedrock	bedrock	bedrock								
Dissolved Metals													
Units	ug/L												
Aluminum													
Antimony													
Arsenic	10												
Barium													
Beryllium													
Cadmium													
Calcium													
Chromium													
Cobalt													
Copper													
Iron													
Lead	15												
Magnesium													
Manganese	300												
Mercury													
Nickel	100												
Potassium													
Selenium													
Silver													
Sodium													
Thallium													
Vanadium													
Zinc													

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)											
Site ID	Interim	GZ-09	ME-C01	ME-C01	ME-C01	MEC01	ME-C02	ME-C02	ME-C02	ME-C02	ME-C04	ME-C04	ME-C04
Sample ID	Cleanup	GZ-09-1106	ME-C01-0806	ME-C01-0906	ME-C01-1006	AE-GMZ-MEC01-1106	ME-C02-0806	ME-C02-0906	ME-C02-1006	ME-C02-1106	ME-C04-0806	ME-C04-0906	ME-C04-1006
Sample Date	Goal	06/17/11	06/17/08	06/29/09	06/24/10	06/08/11	06/17/08	06/29/09	06/24/10	06/16/11	06/17/08	06/29/09	06/24/10
Units		mg/L		mg/L	mg/L			mg/L	mg/L	mg/L		mg/L	mg/L
Sulfate		15		23	17			17	15	18		12	12
Units		mg/L								mg/L			
Chloride		15								2.4			
Units													
Alkalinity													
Total Metals													
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		< 200		< 200	151	105		< 200	< 200	< 200		467	301
Antimony		< 2	< 2	< 2	< 2	< 2	< 2	2.4	< 2	< 2	< 2	< 2	< 2
Arsenic	10	8	18.6	10.6	15.4	< 1	5.9	7.9	9.4	11.6	7.3	10.5	13.3
Barium		12.8	28.6	21.3	25.9	24.1	10.5	10.6	9.4	9.1	12.5	13.5	13.5
Beryllium		< 1	< 1	< 1	0.03	< 1	< 1	< 1	< 1	< 1	< 1	0.047	0.043
Cadmium		< 1	< 1	0.037	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Calcium		22200	15000	14000	14700	15200	12800	13000	14700	16700	18200	19400	21300
Chromium		0.95	0.77	< 2	1.1	< 2	0.47	0.22	0.58	1.2	0.5	0.28	0.9
Cobalt		1.1	0.83	0.76	0.74	0.63	0.078	0.2	0.046	< 1	0.13	0.27	0.19
Copper		< 25	0.98	0.93	1.2	< 25	0.46	2.5	0.67	< 25	0.32	0.91	1.2
Iron		5210	16500	11000	15700	18000	2950	2080	3080	2950	11200	9300	12200
Lead	15	< 1	0.14	0.039	0.21	< 1	0.079	0.5	0.041	< 1	0.064	0.23	0.24
Magnesium		5790	3710	3370	3460	3590	3720	3700	4280	4430	4490	4580	5170
Manganese	300	356	444	339	235	145	229	324	206	294	793	595	609
Mercury		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	100	0.43	2.5	3.1	2.1	< 1	0.64	0.75	0.55	0.43	0.85	1.7	1
Potassium		3020	2730	2100	2450	2380	2430	1900	2540	2720	2720	2420	2890
Selenium		< 5	0.52	< 5	< 5	< 5	< 5	0.26	< 5	< 5	< 5	0.16	< 5
Silver		< 1	0.055	< 1	< 1	< 1	< 1	0.22	< 1	< 1	0.048	< 1	< 1
Sodium		11300	9840	8890	8350	8590	12700	11300	14000	14300	9130	8410	9590
Thallium		< 1	< 1	< 1	< 1	< 1	< 1	0.052	< 1	< 1	< 1	< 1	< 1
Vanadium		< 1	< 5	< 5	0.49	< 1	< 5	0.21	0.42	< 1	< 5	0.59	0.49
Zinc		1.8	4.2	6	2.6	< 2	2.6	7.1	4.1	1.3	1.3	3.8	1.7

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)											
Site ID	Interim	GZ-09	ME-C01	ME-C01	ME-C01	MEC01	ME-C02	ME-C02	ME-C02	ME-C02	ME-C04	ME-C04	ME-C04
Sample ID	Cleanup	GZ-09-1106	ME-C01-0806	ME-C01-0906	ME-C01-1006	AE-GMZ-MEC01-1106	ME-C02-0806	ME-C02-0906	ME-C02-1006	ME-C02-1106	ME-C04-0806	ME-C04-0906	ME-C04-1006
Sample Date	Goal	06/17/11	06/17/08	06/29/09	06/24/10	06/08/11	06/17/08	06/29/09	06/24/10	06/16/11	06/17/08	06/29/09	06/24/10
Dissolved Metals													
Units	ug/L		ug/L		ug/L								
Aluminum					< 200								
Antimony			< 2		< 2								
Arsenic	10		10		6.3								
Barium			26.2		24.1								
Beryllium			< 1		0.034								
Cadmium			< 1		< 1								
Calcium			16200		14700								
Chromium			0.3		0.75								
Cobalt			0.8		0.68								
Copper			0.21		0.76								
Iron			12900		10900								
Lead	15		< 1		< 1								
Magnesium			3830		3380								
Manganese	300		419		237								
Mercury			< 0.2		< 0.2								
Nickel	100		2.4		2								
Potassium			2480		2560								
Selenium			< 5		< 5								
Silver			< 1		< 1								
Sodium			10100		8770								
Thallium			< 1		< 1								
Vanadium			< 5		0.59								
Zinc			2.2		1.3								

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)										
Site ID	Interim	ME-C04	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05s	ME-C05s	ME-C05s
Sample ID	Cleanup	ME-C04-1106	ME-C05D-0806	ME-C05D-0901	ME-C05D-RS-0901	ME-C05D-0906	ME-C05D-RS-0906	ME-C05D-1006	ME-C05D-1105	ME-C05S-0806	ME-C05S-RS-0806	ME-C05S-0901
Sample Date	Goal	06/17/11	06/19/08	01/15/09	01/15/09	06/30/09	06/30/09	06/25/10	05/23/11	06/19/08	06/19/08	01/15/09
							field duplicate				field duplicate	
Units		mg/L		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			mg/L
Sulfate		16		4800	3300	2300	2300	1100	470			490
Units		mg/L										
Chloride		14										
Units												
Alkalinity												
Total Metals												
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		< 200		2550	2670	904	1190	439	1270			1850
Antimony		< 2	< 2	8.9	5.7	< 4	1	< 2	< 2	< 2	< 2	< 60
Arsenic	10	15.3	6.5	< 10	< 10	12.5	13	49.1	65.4	1.6	1.5	< 10
Barium		11.4	13.3	6.3	7.1	6.3	6.2	4.7	16.6	23.4	23.3	11.3
Beryllium		< 1	< 1	< 5	< 5	0.44	0.5	0.3	0.43	< 1	< 1	0.31
Cadmium		< 1	< 1	2.9	3.8	0.4	0.33	< 1	< 1	0.36	0.34	< 5
Calcium		23900	23900	178000	176000	113000	120000	73200	51600	16800	29300	41700
Chromium		0.85	0.16	< 10	< 10	0.99	2	0.72	1.6	0.29	0.31	3.7
Cobalt		< 1	0.14	98.1	99.7	18.2	17.2	4.3	0.85	8	8.1	28.9
Copper		< 25	0.44	< 25	< 25	7.9	5.8	1.7	< 25	0.88	0.48	10.6
Iron		13300	10300	569000	566000	304000	306000	179000	87900	2680	8060	47400
Lead	15	< 1	< 1	11.7	10.1	< 2	0.25	0.074	0.49	0.086	1.1	6.7
Magnesium		5360	5940	68000	68000	41100	43600	24700	16600	4040	6030	12200
Manganese	300	714	584	13800	13800	8750	7230	4220	2790	9110	9450	4920
Mercury		< 0.2	< 0.2	< 0.2	< 0.2	< .4	< 0.2	< 0.2	0.14	< 0.2	< 0.2	< 0.2
Nickel	100	0.63	0.88	353	358	67.2	66.8	19.1	4.5	8	8.3	103
Potassium		2640	1990	14900	14300	9800	11200	8890	6270	1530	2080	3810
Selenium		< 5	< 5	21.4	17.8	0.88	1	< 5	< 5	< 5	< 5	< 35
Silver		< 1	< 1	< 10	< 10	< 2	0.082	< 1	< 1	< 1	< 1	< 10
Sodium		9740	14000	715000	709000	389000	414000	221000	113000	9700	14100	110000
Thallium		< 1	< 1	< 25	< 25	0.044	0.068	< 1	< 1	< 1	< 1	< 25
Vanadium		< 1	< 5	18.7	19.6	3.1	3.3	1.7	3.8	< 5	< 5	2.8
Zinc		< 2	1	393	394	97.6	94.1	46.2	17.5	1.4	2.5	107

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)										
Site ID	Interim	ME-C04	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05d	ME-C05s	ME-C05s	ME-C05s
Sample ID	Cleanup	ME-C04-1106	ME-C05D-0806	ME-C05D-0901	ME-C05D-RS-0901	ME-C05D-0906	ME-C05D-RS-0906	ME-C05D-1006	ME-C05D-1105	ME-C05S-0806	ME-C05S-RS-0806	ME-C05S-0901
Sample Date	Goal	06/17/11	06/19/08	01/15/09	01/15/09	06/30/09	06/30/09	06/25/10	05/23/11	06/19/08	06/19/08	01/15/09
							field duplicate				field duplicate	
Dissolved Metals												
Units	ug/L								ug/L			
Aluminum									< 200			
Antimony									< 2			
Arsenic	10								47.2			
Barium									11.3			
Beryllium									< 1			
Cadmium									< 1			
Calcium									49200			
Chromium									< 2			
Cobalt									0.82			
Copper									< 25			
Iron									76700			
Lead	15								< 1			
Magnesium									15700			
Manganese	300								2690			
Mercury									0.2			
Nickel	100								4.7			
Potassium									6060			
Selenium									< 5			
Silver									< 1			
Sodium									107000			
Thallium									< 1			
Vanadium									< 1			
Zinc									23.3			

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)											
Site ID	Interim	ME-C05s	ME-C05s	ME-C05s	ME-C06	ME-C06	ME-C06	ME-C06	ME-C08d	ME-C08d	ME-C08d	ME-C08d	ME-C08s
Sample ID	Cleanup	ME-C05S-0906	ME-C05S-1006	ME-C05S-1105	ME-C06-0806	ME-C06-0906	ME-C06-1006	ME-C06-1106	ME-C08D-0806	ME-C08D-0906	ME-C08D-1006	ME-C08D-1106	ME-C08S-0806
Sample Date	Goal	06/30/09	06/25/10	05/24/11	06/17/08	06/30/09	06/24/10	06/17/11	06/17/08	06/29/09	06/22/10	06/16/11	06/17/08
Units		mg/L	mg/L	mg/L		mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	
Sulfate		45	46	29		27	18	26		21	81	80	
Units								mg/L				mg/L	
Chloride								9.2				6	
Units													
Alkalinity													
Total Metals													
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		62	80.1	144		< 200	< 200	< 200		< 200	< 200	470	
Antimony		2.8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Arsenic	10	0.69	2.8	6.9	38	66.2	56.2	49	62.2	63.7	80.8	74.1	66.4
Barium		15.6	20.9	22.8	39	50.8	47.2	40	12	12.4	26.2	23.3	25.2
Beryllium		0.086	0.051	< 1	< 1	< 1	0.024	< 1	< 1	< 1	0.029	< 1	< 1
Cadmium		0.43	0.22	0.43	0.15	< 1	< 1	< 1	0.018	< 1	< 1	< 1	0.027
Calcium		10800	13500	14200	22600	25300	23500	25700	17700	17100	27700	29600	17200
Chromium		< 2	0.78	< 2	4.7	< 2	0.28	0.8	0.36	< 2	0.31	< 2	0.35
Cobalt		2.1	2.4	5.8	3.2	7.1	4.5	4.4	8.4	8.5	8.3	9.2	10.6
Copper		1.4	2.1	< 25	2.2	0.29	0.95	< 25	0.18	0.18	0.65	< 25	0.17
Iron		2460	7290	5310	22100	36900	30600	26000	29800	26000	34600	32800	30300
Lead	15	0.42	0.094	0.62	2.9	< 1	0.07	< 1	< 1	< 1	0.078	< 1	< 1
Magnesium		2540	3330	3410	5420	4690	4820	4890	3030	2970	5280	4980	2770
Manganese	300	5550	7710	9980	1650	3620	2600	2460	6250	4900	7430	7290	5420
Mercury		< 0.2	< 0.2	0.14	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	100	9.5	5.6	7.6	7.8	6.7	5.1	4.7	3.9	3.1	6.2	4.7	3.5
Potassium		1430	2450	2260	3150	3930	4070	4240	1440	1460	2490	2590	1450
Selenium		0.51	< 5	< 5	< 5	0.21	< 5	< 5	< 5	0.15	< 5	< 5	< 5
Silver		0.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Sodium		14600	17900	12600	13600	7970	10600	10200	7880	7160	19100	19800	6840
Thallium		0.13	0.064	< 1	< 1	< 1	< 1	< 1	< 1	0.046	0.043	< 1	< 1
Vanadium		0.12	0.44	< 1	3.3	0.064	< 5	< 1	< 5	0.016	< 5	< 1	< 5
Zinc		4	3.2	4.8	9.9	1.4	1.7	1.4	3.2	2.9	3.5	2.1	2.5

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)											
Site ID	Interim	ME-C05s	ME-C05s	ME-C05s	ME-C06	ME-C06	ME-C06	ME-C06	ME-C08d	ME-C08d	ME-C08d	ME-C08d	ME-C08s
Sample ID	Cleanup	ME-C05S-0906	ME-C05S-1006	ME-C05S-1105	ME-C06-0806	ME-C06-0906	ME-C06-1006	ME-C06-1106	ME-C08D-0806	ME-C08D-0906	ME-C08D-1006	ME-C08D-1106	ME-C08S-0806
Sample Date	Goal	06/30/09	06/25/10	05/24/11	06/17/08	06/30/09	06/24/10	06/17/11	06/17/08	06/29/09	06/22/10	06/16/11	06/17/08
Dissolved Metals													
Units	ug/L				ug/L		ug/L						
Aluminum							< 200						
Antimony					< 2		< 2						
Arsenic	10				23		42.6						
Barium					24		45						
Beryllium					< 1		0.03						
Cadmium					0.1		< 1						
Calcium					22100		23500						
Chromium					0.24		0.25						
Cobalt					2.4		4.5						
Copper					0.21		1.5						
Iron					16400		26800						
Lead	15				< 1		< 1						
Magnesium					4950		4740						
Manganese	300				1700		2630						
Mercury					< 0.2		< 0.2						
Nickel	100				3.8		5						
Potassium					2840		4620						
Selenium					< 5		< 5						
Silver					0.06		< 1						
Sodium					13000		12300						
Thallium					< 1		< 1						
Vanadium					< 5		< 5						
Zinc					1.8		1.7						

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)										
Site ID	Interim	ME-C08s	ME-C08s	ME-C08s	ME-C09d	ME-C09d	ME-C09d	MEC09d	MEPM-C10	MEPM-C10	MEPM-C10	MEPM-C11
Sample ID	Cleanup	ME-C08S-0906	ME-C08S-1006	ME-C08S-1106	ME-C09D-0806	ME-C09D-0906	ME-C09D-1006	AE-GMZ-MEC09d-1106	MEPM-C10-0901	MEPM-C10-RS-0901	MEPM-C10-1105	MEPM-C11-0901
Sample Date	Goal	06/29/09	06/22/10	06/16/11	06/19/08	06/30/09	06/22/10	06/06/11	01/13/09	01/13/09	05/23/11	01/13/09
Units		mg/L	mg/L	mg/L		mg/L	mg/L		mg/L	mg/L	mg/L	mg/L
Sulfate		19	29	37		18	18		250	290	25	380
Units				mg/L								
Chloride				6.3								
Units												
Alkalinity												
Total Metals												
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		< 200	116	< 200		< 200	1220	438	5800	5950	1670	159
Antimony		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 60	< 60	< 2	< 60
Arsenic	10	95.4	75.1	77.4	4.2	8.3	10.3	< 1	20.2	19.6	1.7	44.6
Barium		26.5	33.6	28.3	22.9	15	25.4	21.2	7.2	7.3	23.3	18
Beryllium		< 1	0.036	< 1	< 1	0.038	0.088	< 1	2	2.1	< 1	0.55
Cadmium		< 1	< 1	< 1	0.018	0.039	< 1	< 1	0.63	0.63	< 1	0.89
Calcium		17300	22700	17000	29300	21000	29700	31700	4840	5240	9580	35300
Chromium		< 2	0.37	< 2	0.74	0.4	2.6	< 2	10	10.8	1.9	< 10
Cobalt		10.7	12.5	10.3	0.41	0.18	0.67	0.45	19.1	20.1	2.6	< 50
Copper		2.7	1	< 25	0.45	0.44	1.8	< 25	12.4	12.7	< 25	< 25
Iron		30000	37100	30300	8050	4740	7740	5900	8460	8620	2410	68200
Lead	15	< 1	0.42	< 1	0.11	0.13	0.79	0.71	7.4	7.6	< 1	14.8
Magnesium		3040	3600	2450	6050	4320	6550	6590	5310	5330	2450	9140
Manganese	300	4930	6410	4920	642	344	464	446	2220	2190	3270	1500
Mercury		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.14	< 0.2
Nickel	100	3.7	3.7	2.9	2.3	1.4	3.1	< 1	57.3	58.5	9.7	2.2
Potassium		1330	1950	2210	2150	1900	3170	3240	1200	1310	< 5000	4210
Selenium		0.24	< 5	< 5	< 5	0.29	< 5	< 5	< 35	< 35	< 5	5.8
Silver		< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 10	< 1	< 10
Sodium		6260	9360	15300	14100	8440	11500	13100	112000	115000	7950	63100
Thallium		0.061	0.077	< 1	< 1	0.012	< 1	< 1	< 25	< 25	< 1	< 25
Vanadium		0.024	0.38	< 1	0.4	0.077	1.8	< 1	1.3	< 50	< 1	2.7
Zinc		6.1	4.1	2.9	2.9	1.4	4.5	< 2	84.3	87.4	4.4	15.8

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)										
Site ID	Interim	ME-C08s	ME-C08s	ME-C08s	ME-C09d	ME-C09d	ME-C09d	MEC09d	MEPM-C10	MEPM-C10	MEPM-C10	MEPM-C11
Sample ID	Cleanup	ME-C08S-0906	ME-C08S-1006	ME-C08S-1106	ME-C09D-0806	ME-C09D-0906	ME-C09D-1006	AE-GMZ-MEC09d-1106	MEPM-C10-0901	MEPM-C10-RS-0901	MEPM-C10-1105	MEPM-C11-0901
Sample Date	Goal	06/29/09	06/22/10	06/16/11	06/19/08	06/30/09	06/22/10	06/06/11	01/13/09	01/13/09	05/23/11	01/13/09
Dissolved Metals												
Units	ug/L						ug/L	ug/L				
Aluminum							< 200	< 200				
Antimony							< 2	< 2				
Arsenic	10						4	< 1				
Barium							16.8	17.1				
Beryllium							< 1	< 1				
Cadmium							< 1	< 1				
Calcium							29000	32200				
Chromium							0.16	< 2				
Cobalt							0.21	< 1				
Copper							0.45	< 25				
Iron							3420	4060				
Lead	15						0.06	< 1				
Magnesium							6120	6560				
Manganese	300						452	440				
Mercury							< 0.2	< 0.2				
Nickel	100						0.92	< 1				
Potassium							2660	3200				
Selenium							< 5	< 5				
Silver							< 1	< 1				
Sodium							10900	13400				
Thallium							< 1	< 1				
Vanadium							< 5	< 1				
Zinc							0.94	5.4				

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)									
Site ID	Interim	MEPM-C11	MEPM-C11	MEPM-C12	MEPM-C12	MEPM-C12	MEPM-C12	MEPM-C13d	MEPM-C13d	MEPM-C13d	MEPM-C13s
Sample ID	Cleanup	MEPM-C11-1002	MEPM-C11-1105	MEPM-C12-0901	MEPM-C12-1002	MEPM-C12-1105	MEPM-C12-RS-1105	MEPM-C13D-0901	MEPM-C13D-1002	MEPM-C13D-1105	MEPM-C13S-0901
Sample Date	Goal	02/16/10	05/23/11	01/13/09	02/15/10	05/24/11	05/24/11	01/15/09	02/16/10	05/24/11	01/15/09
							field duplicate				
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sulfate		120	77	1400	490	190	190	2000	1800	520	120
Units											
Chloride											
Units											
Alkalinity											
Total Metals											
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		132	302	5440	112	212	272	28500	13600	663	568
Antimony		< 60	< 2	< 60	< 60	< 2	< 2	< 60	< 60	< 2	< 60
Arsenic	10	38.3	65.1	< 10	16	18.5	19.3	< 10	17	11.7	3
Barium		12.9	21.9	7	10.2	< 10	< 10	13.2	19.3	19.2	42.3
Beryllium		< 5	< 1	1.8	< 5	< 1	< 1	4.6	4.3	0.61	< 5
Cadmium		< 5	< 1	3.6	< 5	< 1	< 1	2.4	1.5	< 1	< 5
Calcium		29800	28500	48700	35000	28000	26500	52700	90000	48400	14800
Chromium		0.32	0.96	< 10	< 10	1.6	2	30	2.8	< 2	3
Cobalt		< 50	0.45	188	5.8	3.5	3.3	148	224	26.1	< 50
Copper		< 25	< 25	< 25	< 25	< 25	< 25	35.6	< 25	< 25	12.5
Iron		24000	33000	242000	120000	38900	37500	163000	226000	93500	1680
Lead	15	1.1	1.8	17.7	< 10	0.48	0.56	21.9	3.2	0.66	10.3
Magnesium		9380	7440	21300	11800	7850	7370	31600	41400	14900	3540
Manganese	300	1300	1350	25000	6160	4320	4090	23100	10800	7400	4170
Mercury		< 0.2	0.15	< 0.2	< 0.2	0.13	0.16	< 0.2	< 0.2	0.21	< 0.2
Nickel	100	2.4	1.5	353	10.3	7.2	6.7	360	440	81.7	3.6
Potassium		3550	2820	6760	9660	4520	4410	3330	8240	4220	2040
Selenium		< 35	< 5	21.9	< 35	< 5	< 5	3.5	< 35	< 5	< 35
Silver		0.2	< 1	< 10	< 10	< 1	< 1	< 10	< 10	< 1	< 10
Sodium		41500	29600	273000	86600	47900	45900	432000	400000	122000	29600
Thallium		< 25	< 1	< 25	2.9	< 1	< 1	< 25	< 25	< 1	< 25
Vanadium		< 50	2.1	9.4	< 50	1.1	1.5	26.9	< 50	< 1	1.6
Zinc		3.1	6.1	328	19	4.4	4	503	278	41.3	12.8

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)									
Site ID	Interim	MEPM-C11	MEPM-C11	MEPM-C12	MEPM-C12	MEPM-C12	MEPM-C12	MEPM-C13d	MEPM-C13d	MEPM-C13d	MEPM-C13s
Sample ID	Cleanup	MEPM-C11-1002	MEPM-C11-1105	MEPM-C12-0901	MEPM-C12-1002	MEPM-C12-1105	MEPM-C12-RS-1105	MEPM-C13D-0901	MEPM-C13D-1002	MEPM-C13D-1105	MEPM-C13S-0901
Sample Date	Goal	02/16/10	05/23/11	01/13/09	02/15/10	05/24/11	05/24/11	01/15/09	02/16/10	05/24/11	01/15/09
							field duplicate				
Dissolved Metals											
Units	ug/L		ug/L			ug/L		ug/L			
Aluminum			< 200			< 200		84900			
Antimony			< 2			< 2		< 60			
Arsenic	10		13.4			16.3		22.4			
Barium			10.9			< 10		7			
Beryllium			< 1			< 1		21.3			
Cadmium			< 1			< 1		11.3			
Calcium			28300			31700		69900			
Chromium			< 2			< 2		65.2			
Cobalt			< 1			3.2		466			
Copper			< 25			< 25		234			
Iron			14700			37600		213000			
Lead	15		< 1			< 1		24.9			
Magnesium			7500			8890		38800			
Manganese	300		1310			4230		26100			
Mercury			0.23			0.23		< 0.2			
Nickel	100		0.93			7.8		784			
Potassium			2810			4990		5150			
Selenium			< 5			< 5		< 35			
Silver			< 1			< 1		< 10			
Sodium			30800			57700		1030000			
Thallium			< 1			< 1		< 25			
Vanadium			< 1			< 1		30.3			
Zinc			8			10.6		1220			

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)							East of Route 125			
Site ID	Interim	MEPM-C13s	MEPM-C13s	MEPM-C13s	MW-B1	MW-B1	MW-B1	MW-B1	GZ-04a	GZ-04a	GZ-04a	GZ-04a
Sample ID	Cleanup	MEPM-C13S-1002	MEPM-C13S-RS-1002	MEPM-C13S-1105	MW-B1-0806	MW-B1-0906	MW-B1-1006	MW-B1-1106	GZ4A-0806	GZ4A-0906	GZ4A-RS-0906	GZ-04A-1006
Sample Date	Goal	02/15/10	02/15/10	05/23/11	06/19/08	06/29/09	06/24/10	06/15/11	06/18/08	06/24/09	06/24/09	06/23/10
			field duplicate								field duplicate	
Units		mg/L	mg/L	mg/L		mg/L	mg/L	mg/L		mg/L	mg/L	mg/L
Sulfate		32	33	32		25	21	23		3700	3600	1400
Units								mg/L		mg/L	mg/L	mg/L
Chloride								12		21	21	13
Units										mg/L	mg/L	mg/L
Alkalinity										120	120	37
Total Metals												
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		973	867	79		< 200	< 200	< 200		802	812	50.8
Antimony		< 60	< 60	< 2	< 2	< 2	< 2	< 2	< 2	< 4	< 4	< 2
Arsenic	10	5.3	3.5	0.51	5.6	6.1	5.8	6.1	66.9	69.8	62.9	73.3
Barium		21.2	20.9	12.9	9.9	11	11.1	9.5	17.9	39.1	37.7	14.6
Beryllium		< 5	< 5	< 1	< 1	< 1	< 1	< 1	< 1	0.63	0.78	0.27
Cadmium		0.6	0.5	0.46	< 1	< 1	< 1	< 1	< 1	1.4	1.3	< 1
Calcium		11800	11800	15500	18000	19300	20100	24100	19700	95300	95800	67800
Chromium		3.1	2.8	< 2	0.33	< 2	0.47	< 2	0.33	1.8	1.6	0.66
Cobalt		1.3	1.3	< 1	3.1	5.6	3.2	4.2	3.3	377	351	84.5
Copper		11.6	10.2	< 25	0.25	0.54	0.34	< 25	0.25	13.5	14.4	1.1
Iron		2300	2100	144	5550	3560	4680	3870	20400	300000	301000	143000
Lead	15	3.9	4.2	2	< 1	< 1	< 1	< 1	< 1	0.04	0.066	< 1
Magnesium		2960	2930	4000	3500	3850	4160	4850	3140	17800	17900	15500
Manganese	300	6060	6040	8850	2240	3190	3010	3700	2950	63700	69500	16100
Mercury		< 0.2	< 0.2	0.15	< 0.2	< 0.2	< 0.2	0.13	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	100	4.1	3.3	2.9	1.6	2.6	2.3	3	5.1	181	168	61.8
Potassium		1950	1920	< 5000	2200	2320	2500	3390	3110	19200	19500	7910
Selenium		< 35	< 35	< 5	< 5	0.19	< 5	< 5	< 5	3.8	4	0.35
Silver		< 10	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 2	< 1
Sodium		15000	14800	13100	17500	19300	16400	23900	22700	964000	956000	492000
Thallium		< 25	< 25	< 1	< 1	0.013	< 1	< 1	< 1	< 2	< 2	< 1
Vanadium		1.9	1.7	< 1	< 5	0.053	0.63	< 1	< 5	2.1	1.9	1.1
Zinc		6.5	5.9	1.5	1.3	1.9	1.8	2.1	6	27	26.8	11.5

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		Area C (continued)							East of Route 125			
Site ID	Interim	MEPM-C13s	MEPM-C13s	MEPM-C13s	MW-B1	MW-B1	MW-B1	MW-B1	GZ-04a	GZ-04a	GZ-04a	GZ-04a
Sample ID	Cleanup	MEPM-C13S-1002	MEPM-C13S-RS-1002	MEPM-C13S-1105	MW-B1-0806	MW-B1-0906	MW-B1-1006	MW-B1-1106	GZ4A-0806	GZ4A-0906	GZ4A-RS-0906	GZ-04A-1006
Sample Date	Goal	02/15/10	02/15/10	05/23/11	06/19/08	06/29/09	06/24/10	06/15/11	06/18/08	06/24/09	06/24/09	06/23/10
			field duplicate								field duplicate	
Dissolved Metals												
Units	ug/L											
Aluminum												
Antimony												
Arsenic	10											
Barium												
Beryllium												
Cadmium												
Calcium												
Chromium												
Cobalt												
Copper												
Iron												
Lead	15											
Magnesium												
Manganese	300											
Mercury												
Nickel	100											
Potassium												
Selenium												
Silver												
Sodium												
Thallium												
Vanadium												
Zinc												

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		East of Route 125 (continued)											
Site ID	Interim	GZ-04a	GZ-04a	GZ-04a	GZ-04b	GZ-04b	GZ-04b	GZ-04b	ME-08	ME-08	MEOW-1	MEOW-1	MEOW-1
Sample ID	Cleanup	GZ-04A-RS-1006	GZ-04A-1106	GZ-04A-RS-1106	GZ4B-0806	GZ4B-0906	GZ-04B-1006	GZ-04B-1106	ME-8-0906	ME-08-1006	MEOW-1-0806	MEOW-1-0906	MEOW-1-1006
Sample Date	Goal	06/23/10	06/15/11	06/15/11	06/18/08	06/24/09	06/23/10	06/15/11	06/25/09	06/23/10	06/18/08	06/24/09	06/23/10
		field duplicate		field duplicate									
					bedrock	bedrock	bedrock	bedrock					
Units		mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L
Sulfate		1300	1700	1600		550	6100	5200	13	17		3800	4300
Units		mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L
Chloride		12	13	14		44	40	38	210	140		43	37
Units		mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L
Alkalinity		53	91	83		250	140	250	7.8	13		250	270
Total Metals													
Units	ug/L		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum			113	145		93.4	186	105	< 200	< 200		< 200	406
Antimony			< 4	< 2	0.2	1.1	0.12	< 4	0.034	< 2	0.69	0.31	0.52
Arsenic	10		68.4	63.5	38.1	36.6	16.3	21.1	0.17	< 1	94	111	142
Barium			26.7	28	27.9	105	89.4	57.8	89.1	28.7	7	132	158
Beryllium			2.4	2.4	< 1	0.05	2.2	2.5	0.049	0.025	0.26	0.078	0.23
Cadmium			< 2	< 1	0.028	0.25	< 1	< 2	0.43	0.096	0.13	< 2	< 1
Calcium			86200	99900	57600	186000	550000	526000	10500	9300	2150	220000	130000
Chromium			< 4	0.9	0.28	1	1.3	1.5	< 2	< 2	3	2	3.5
Cobalt			52.9	50.4	0.52	0.95	103	59.6	1.9	0.57	1.2	19.7	10.7
Copper			< 25	< 25	1	2.7	11.8	< 25	2.2	1.2	21.8	19	16.7
Iron			142000	171000	5840	26300	412000	323000	254	242	1360	233000	173000
Lead	15		< 2	< 1	0.088	0.57	0.077	< 2	< 1	< 1	11	2.8	8.1
Magnesium			20600	24800	10600	34800	161000	144000	2010	1640	405	49100	29200
Manganese	300		17800	16200	897	3520	50400	33000	989	494	10.1	24500	21300
Mercury			0.16	0.15	< 0.2	< 0.2	< 0.2	0.24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	100		77.6	73.5	93.2	81.4	206	177	2.5	0.67	17.2	26.8	28.9
Potassium			9760	11700	3990	7960	21300	21000	3550	3280	1630	26600	24100
Selenium			< 10	< 5	1.2	2.7	3	< 5	0.37	< 5	0.63	1.8	2.1
Silver			< 2	< 1	< 1	0.11	< 1	< 2	0.017	< 1	0.071	< 2	< 1
Sodium			483000	583000	67400	180000	1310000	1190000	124000	92100	154000	1140000	1770000
Thallium			< 2	< 1	< 1	0.021	< 1	< 2	0.11	< 1	< 1	< 2	< 1
Vanadium			3.1	3.4	0.76	1.2	15.7	11	< 5	< 5	12	4.3	10.1
Zinc			31.3	29.1	4.8	5.9	5.2	5.2	1.9	0.64	7.3	14	20.5

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		East of Route 125 (continued)											
Site ID	Interim	GZ-04a	GZ-04a	GZ-04a	GZ-04b	GZ-04b	GZ-04b	GZ-04b	ME-08	ME-08	MEOW-1	MEOW-1	MEOW-1
Sample ID	Cleanup	GZ-04A-RS-1006	GZ-04A-1106	GZ-04A-RS-1106	GZ4B-0806	GZ4B-0906	GZ-04B-1006	GZ-04B-1106	ME-8-0906	ME-08-1006	MEOW-1-0806	MEOW-1-0906	MEOW-1-1006
Sample Date	Goal	06/23/10	06/15/11	06/15/11	06/18/08	06/24/09	06/23/10	06/15/11	06/25/09	06/23/10	06/18/08	06/24/09	06/23/10
		field duplicate		field duplicate									
					bedrock	bedrock	bedrock	bedrock					
Dissolved Metals													
Units	ug/L												ug/L
Aluminum													38.3
Antimony													0.21
Arsenic	10												131
Barium													137
Beryllium													0.077
Cadmium													< 1
Calcium													124000
Chromium													2.2
Cobalt													10.2
Copper													14.5
Iron													179000
Lead	15												0.3
Magnesium													27100
Manganese	300												22600
Mercury													< 0.2
Nickel	100												27.1
Potassium													22400
Selenium													2.4
Silver													< 1
Sodium													1780000
Thallium													< 1
Vanadium													4.6
Zinc													3.5

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		East of Route 125 (continued)												
Site ID	Interim	MEOW-1	MEOW-2	MEOW-2	MEOW-2	MEOW-2	W-19	W-19	W-20	W-20	W-20	W-20	W-21	W-21
Sample ID	Cleanup	MEOW-1-1106	MEOW-2-0806	MEOW-2-0906	MEOW-2-1006	MEOW-2-1106	W19-0906	W-19-1006	W20-0806	W20-0906	W-20-1006	W-20-1106	W21-0906	W-21-1006
Sample Date	Goal	06/15/11	06/18/08	06/24/09	06/23/10	06/15/11	06/25/09	06/23/10	06/18/08	06/25/09	06/23/10	06/15/11	06/25/09	06/23/10
Units		mg/L		mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L
Sulfate		14500		22	300	74	180	210		310	180	330	73	51
Units		mg/L		mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L
Chloride		66		67	150	240	18	8.9		23	16	10	25	10
Units		mg/L		mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L
Alkalinity		760		110	92	130	71	55		120	120	140	54	41
Total Metals														
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum		< 200		203	62	382	65.5	< 200		< 200	< 200	< 200	< 200	< 200
Antimony		< 2	< 2	< 4	< 2	< 2	< 2	< 2	0.2	< 2	0.18	< 2	< 2	< 2
Arsenic	10	42.6	19.2	2	15	4.5	56.8	53.8	88.4	127	156	178	8.6	9.8
Barium		32.5	41.8	74.8	82.8	82.9	45.4	57.1	56.1	92.3	62.4	64.9	53.3	46.9
Beryllium		< 1	< 1	0.065	< 1	< 1	0.043	< 1	< 1	< 1	< 1	< 1	0.025	0.033
Cadmium		< 1	< 1	< 2	< 1	< 1	0.046	< 1	0.023	< 1	< 1	< 1	< 1	< 1
Calcium		331000	11000	13500	22400	20600	26800	23600	26100	46100	42500	43800	28100	21100
Chromium		2.7	1	1.7	1.3	2.2	0.077	0.4	0.14	0.18	0.22	0.83	< 2	0.32
Cobalt		40.8	1.2	4.4	0.92	2.1	6.8	5	6	16.8	9.9	10.4	3	2.6
Copper		< 25	1.3	3.5	0.6	< 25	0.77	0.83	0.67	1.3	0.72	< 25	0.39	1.3
Iron		833000	29600	47700	49600	43300	34700	35300	27000	55900	53400	63600	4840	4970
Lead	15	1	0.2	0.55	0.04	0.73	< 1	0.056	< 1	0.08	0.086	< 1	0.042	0.52
Magnesium		61600	2120	2820	5140	3900	3580	3070	4900	7200	7860	7770	3900	2910
Manganese	300	42400	1850	4030	2970	3240	5370	4530	1260	3560	3070	4110	912	857
Mercury		0.37	< 0.2	< 0.2	< 0.2	0.13	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.13	< 0.2	< 0.2
Nickel	100	27.1	3.2	6.2	3.9	8.5	6.7	6.1	8.9	24.6	17	26.2	3.7	4.1
Potassium		39300	3010	3200	6000	5820	3890	5200	3090	6340	5980	7500	4930	4040
Selenium		< 5	< 5	0.64	< 5	< 5	< 5	< 5	< 5	0.57	< 5	< 5	0.2	< 5
Silver		< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Sodium		603000	123000	63500	253000	213000	43900	88700	19100	79800	74100	180000	26800	18300
Thallium		< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 1	0.032	< 1	< 1	0.012	< 1
Vanadium		7.6	1.2	1.1	1.2	1.3	0.067	< 5	< 5	< 5	< 5	< 1	0.014	< 5
Zinc		10.9	3	5.4	2.2	2.3	2.7	2.5	< 2	2	1.4	< 2	1.7	2.9

Table J-3
Groundwater Inorganic Performance Monitoring Results (2008 - 2011)
Ottati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

		East of Route 125 (continued)												
Site ID	Interim	MEOW-1	MEOW-2	MEOW-2	MEOW-2	MEOW-2	W-19	W-19	W-20	W-20	W-20	W-20	W-21	W-21
Sample ID	Cleanup	MEOW-1-1106	MEOW-2-0806	MEOW-2-0906	MEOW-2-1006	MEOW-2-1106	W19-0906	W-19-1006	W20-0806	W20-0906	W-20-1006	W-20-1106	W21-0906	W-21-1006
Sample Date	Goal	06/15/11	06/18/08	06/24/09	06/23/10	06/15/11	06/25/09	06/23/10	06/18/08	06/25/09	06/23/10	06/15/11	06/25/09	06/23/10
Dissolved Metals														
Units	ug/L													
Aluminum														
Antimony														
Arsenic	10													
Barium														
Beryllium														
Cadmium														
Calcium														
Chromium														
Cobalt														
Copper														
Iron														
Lead	15													
Magnesium														
Manganese	300													
Mercury														
Nickel	100													
Potassium														
Selenium														
Silver														
Sodium														
Thallium														
Vanadium														
Zinc														

Table J-4
Surface Water Performance Monitoring Results (Detections 2008 - 2011)
Otttati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

	North Brook												
	Upstream of Site					Area C	At Culvert, West Side of Route 125						
Site ID	SG-NB01	SG-NB01	SG-NB01	SG-NB01	SG-NB01	SG-NB02	SG-NB04	SG-NB04	SG-NB04	SG-NB04	SG-NB04	SG-NB04	SG-NB04
Sample ID	SG-NB1-0806	SG-NB1-RS-0806	SG-NB1-0906	SG-NB01-1006	SG-NB01-1106	SG-NB2-0806	SG-NB4-0806	SG-NB4-0906	SG-NB4-RS-0906	SG-NB04-1006	SG-NB04-RS-1006	SG-NB04-1106	SG-NB04-RS-1106
Sample Date	06/16/08	06/16/08	06/29/09	06/25/10	06/20/11	06/16/08	06/16/08	06/25/09	06/25/09	06/25/10	06/25/10	06/20/11	06/20/11
		field duplicate							field duplicate		field duplicate		field duplicate
			mg/L	mg/L	mg/L			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sulfate			5.5	5.6	8			6.3	6.4	3.9	3.9	11	19
				mg/L	mg/L			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chloride				9	9.5			12	12	17	17	30	31
				mg/L	mg/L			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Alkalinity				17	22			34	22	23	23	29	29
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloromethane	0.2	0.18	0.1	< 0.5	< 0.5	0.55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acetone	< 5	< 5	2.9	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon disulfide	< 0.5	< 0.5	< 0.5	< 0.5	0.51	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.22	< 0.5
Methylene chloride	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.29	< 0.5	0.45	0.46	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.47	< 0.5	0.18	0.16	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.34	0.12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.27	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Hexanone	< 5	< 5	< 5	< 5	< 5	< 5	2.8	< 5	< 5	< 5	< 5	< 5	< 5
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,4-Dioxane	< 2	< 2	< 2	0.2	< 2	0.56	< 2	< 2	< 2	0.2	0.24	< 2	< 2
					ug/L							ug/L	ug/L
Metals, Unfiltered (total)													
Aluminum					38.6							42	40.3
Arsenic					0.51							1.1	1.4
Barium					7.3							15.4	18.1
Calcium					6610							12200	9780
Chromium					0.84							1.2	1.1
Cobalt					0.6							0.97	1.2
Copper					0.57							0.53	0.94
Iron					451							1900	1910
Lead					0.081							< 1	0.82
Magnesium					1290							1880	1810
Manganese					298							770	810
Nickel					0.99							1.4	1.6
Potassium					762							832	919
Sodium					12700							19100	18200
Zinc					5.5							4.7	5.8

Table J-4
Surface Water Performance Monitoring Results (Detections 2008 - 2011)
Otttati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

	North Brook												
	Upstream of Site					Area C	At Culvert, West Side of Route 125						
Site ID	SG-NB01	SG-NB01	SG-NB01	SG-NB01	SG-NB01	SG-NB02	SG-NB04	SG-NB04	SG-NB04	SG-NB04	SG-NB04	SG-NB04	SG-NB04
Sample ID	SG-NB1-0806	SG-NB1-RS-0806	SG-NB1-0906	SG-NB01-1006	SG-NB01-1106	SG-NB2-0806	SG-NB4-0806	SG-NB4-0906	SG-NB4-RS-0906	SG-NB04-1006	SG-NB04-RS-1006	SG-NB04-1106	SG-NB04-RS-1106
Sample Date	06/16/08	06/16/08	06/29/09	06/25/10	06/20/11	06/16/08	06/16/08	06/25/09	06/25/09	06/25/10	06/25/10	06/20/11	06/20/11
		field duplicate							field duplicate		field duplicate		field duplicate
	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		
Metals, Dissolved (field filtered)													
Aluminum			41.8	< 200				120	70.7	33.7	< 200		
Antimony	< 2	< 2	< 2	< 2		0.18	< 2	< 2	< 2	0.14	0.11		
Arsenic	0.7	0.64	0.57	0.84		4.7	1.3	0.72	0.7	1.4	1.4		
Barium	8.5	8.2	7.7	7.3		15	13.3	9.8	9.2	12.8	13		
Beryllium	< 1	< 1	< 1	0.044		< 1	< 1	0.026	< 1	0.035	0.037		
Cadmium	< 1	0.027	< 1	< 1		0.026	< 1	< 1	< 1	< 1	0.061		
Calcium	6410	6560	4850	5410		6320	8780	6510	6500	7270	7070		
Chromium	0.49	0.47	0.26	2.1		0.64	0.67	0.33	0.31	0.72	2.1		
Cobalt	0.36	0.37	0.29	0.21		0.85	0.7	0.25	0.23	0.59	0.63		
Copper	0.39	0.49	0.64	1.1		0.23	0.33	0.68	1.4	< 2	0.5		
Iron	260	379	239	236		1210	1040	897	833	1700	1640		
Lead	0.065	0.081	0.11	0.13		< 1	0.098	0.3	0.27	0.16	0.17		
Magnesium	1300	1420	1060	1130		1750	1710	1440	1390	1460	1390		
Manganese	328	294	271	107		3160	845	192	185	731	735		
Mercury	< 0.2	< 0.2	< 0.2	< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2		
Nickel	1.4	1.4	1.6	3.3		0.63	1.7	1.3	3.4	1.1	3.4		
Potassium	1150	866	917	998		1740	1070	942	977	1160	1100		
Selenium	< 5	< 5	0.18	< 5		< 5	< 5	0.18	0.2	< 5	< 5		
Silver	< 1	0.058	< 1	< 1		< 1	< 1	< 1	< 1	< 1	< 1		
Sodium	8820	8970	5950	9170		7730	10800	8890	9190	12600	13500		
Thallium	< 1	< 1	< 1	< 1		< 1	< 1	0.0091	< 1	0.11	0.075		
Vanadium	< 5	0.42	0.24	< 5		< 5	< 5	0.28	0.3	0.64	0.47		
Zinc	7.8	5.6	6.6	4.5		4	6.5	6.5	6.8	3.5	16.2		

Detection (organics only)

Table J-4
Surface Water Performance Monitoring Results (Detections 2008 - 2011)
Otttati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

	South Brook							
	Upstream of Site				At Culvert, West Side of Route 125			
Site ID	SG-SB01	SG-SB01	SG-SB01	SG-SB01	SG-SB04	SG-SB04	SG-SB04	SG-SB04
Sample ID	SG-LOC5-0806	SG-SB1-0908	SG-SB01-1006	SG-SB01-1106	SG-SB4-0806	SG-SB4-0906	SG-SB04-1006	SG-SB04-1106
Sample Date	06/16/08	06/29/09	06/25/10	06/20/11	06/16/08	06/24/09	06/25/10	06/20/11
		mg/L	mg/L	mg/L		mg/L	mg/L	mg/L
Sulfate		1.2	3.2	13		1.4	3.5	17
			mg/L	mg/L		mg/L	mg/L	mg/L
Chloride			28	29		24	26	28
			mg/L	mg/L		mg/L	mg/L	mg/L
Alkalinity			5	1		3.8	5.5	1.5
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloromethane	0.51	< 0.5	< 0.5	< 0.5	0.2	< 0.5	< 0.5	< 0.5
Acetone	< 5	3.4	< 5	< 5	< 5	< 5	< 5	< 5
Carbon disulfide	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	0.26	< 0.5	< 0.5	< 0.5	0.28	0.71	< 0.5	< 0.5
cis-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Hexanone	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,4-Dioxane	< 2	< 2	0.35	< 2	< 2	< 2	0.31	< 2
				ug/L				ug/L
Metals, Unfiltered (total)								
Aluminum				324				256
Arsenic				0.95				1.1
Barium				8.3				8.5
Calcium				5300				4770
Chromium				1.6				1.6
Cobalt				0.52				0.24
Copper				0.99				1.1
Iron				901				1050
Lead				1.6				0.94
Magnesium				1210				1140
Manganese				48.4				40.7
Nickel				1.5				1.3
Potassium				1010				917
Sodium				19400				18500
Zinc				8.3				7.4

Table J-4
Surface Water Performance Monitoring Results (Detections 2008 - 2011)
Otttati Goss/Kingston Steel Drum Superfund Site
Kingston, New Hampshire

	South Brook							
	Upstream of Site				At Culvert, West Side of Route 125			
Site ID	SG-SB01	SG-SB01	SG-SB01	SG-SB01	SG-SB04	SG-SB04	SG-SB04	SG-SB04
Sample ID	SG-LOC5-0806	SG-SB1-0908	SG-SB01-1006	SG-SB01-1106	SG-SB4-0806	SG-SB4-0906	SG-SB04-1006	SG-SB04-1106
Sample Date	06/16/08	06/29/09	06/25/10	06/20/11	06/16/08	06/24/09	06/25/10	06/20/11
	ug/L	ug/L	ug/L		ug/L	ug/L	ug/L	
Metals, Dissolved (field filtered)								
Aluminum		159	174			194	146	
Antimony	0.14	1.3	< 2		< 2	0.19	< 2	
Arsenic	1.2	0.92	1.4		1.4	0.95	2.3	
Barium	9.4	7.9	8.3		9.3	7	8.9	
Beryllium	< 1	0.048	0.037		< 1	0.047	0.045	
Cadmium	0.074	0.05	< 1		0.024	< 1	< 1	
Calcium	5190	3620	4410		4890	3640	4390	
Chromium	0.62	0.64	0.73		0.9	0.14	1	
Cobalt	0.53	0.53	0.5		0.44	0.37	1.2	
Copper	1.1	0.72	1.6		0.72	0.61	1.8	
Iron	820	815	913		841	726	1220	
Lead	1.4	1.9	1.3		1	1.3	1.5	
Magnesium	1390	950	1130		1240	923	1080	
Manganese	84.2	74.3	82.9		73.1	46.4	368	
Mercury	< 0.2	< 0.2	< 0.2		< 0.2	< 0.2	0.018	
Nickel	1.4	1.2	1.2		1.4	0.97	1.6	
Potassium	1090	1060	1400		1200	1090	1330	
Selenium	0.3	0.52	< 5		0.23	0.23	< 5	
Silver	0.071	0.17	< 1		< 1	0.032	< 1	
Sodium	19900	16400	16800		19000	16000	17900	
Thallium	< 1	0.043	< 1		< 1	0.014	< 1	
Vanadium	0.57	0.6	0.6		0.6	0.5	0.87	
Zinc	11.3	13.3	8.5		8	8.5	8.2	

Detection (organics only)